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The Master Key

STANDING before the entrance to the vaults of a safe-deposit company, the president pointed with some pride to the elaborate safeguards against unauthorized entry. The huge doors of tempered steel, the complicated locks, bolts and bars seemed enough to defy an army of burglars. Yet, the whole formidable array was at the command of one man who was armed only with a thin strip of metal two inches long.

The Man with the Key.

The human frame is the most wonderful piece of mechanism ever coming before the comprehension of man. Its intricate arrangements, its most ingenious devices, provisions, interrelations, balancings are only beginning to be guessed—whether we shall ever succeed in recognizing all of them is as yet questionable. That these delicate adjustments and complicated devices may readily be thrown out of order and their harmonious operation be disturbed by many extraneous influences, is evident to anybody who begins to appreciate the structure he is studying. The most wonderful thing about this wonderful body of ours is that it "works," that it takes so very much to stop its vital operations and consign it to the scrap-heap.

Yet to all this mechanism and its manifold disharmonies, extrinsic and intrinsic, there is a key—one key.

The engineer knows his task: to keep the machine clean, keep up the steam, keep the ashes cleared away, and keep the works well oiled to insure smooth action without wearing friction.

Word for word, meaning for meaning, this applies to the human machine. The man who realizes this is the Man with the Key.

Keep up the steam.

The exact apportionment of food to that particular person, with his particular needs, at each particular time—the measured ration, duly varied—means much. Too much nitrogen, too little water, too great bulk, too little waste, too hasty and unphysiologic eating; there are innumerable faults that may be corrected—evidences of man's proneness to evil, as of the sparks to fly upward. The study of nutrition as applied to the individual is one that only the "family doctor," as revised and improved by the methods of the modern "internist," can utilize. For here we touch upon the specialty of specialties, the study of the man himself, and not of any one dissociated organ.

Keep the machinery clean.

How can it but creak if into its delicate watch-like mechanism is poured a lot of uric-acid sand, or rubbish rheumatic, syphilitic, malarial, gonorrheal, metallic? Or if it is rusty with microbes, eating into

its surfaces? The invisible demons that swarmed to the attack of the Persian with Ahriman are as nothing compared with these microbic enemies of life that enter our bodies with every particle of food or drink, with every breath; that collect at every possible point of attack, waiting an unguarded moment on the part of the garrison, to effect a lodgment and inaugurate a war to the death.

Note that our engineer is never idle, always busy, seizing every spare moment to go over his engine, cleaning, drying, rubbing, polishing, alert to see that dirt, moisture and oxidation do not work a deterioration of its condition. "Go thou and do likewise"—the human machine needs and deserves equal care.

Keep the machinery oiled.

Friction means—watch the points where wearing friction eats into the substance of life and frays out vital tissues. The strain on heart, liver, brain, muscles must be eased, the life burdens adjusted. Ever hear of an engineer lubricating his machinery with alcohol, tobacco, morphine or cocaine? Or with coffee? Sometimes the human body really needs more oil than it is getting, and Bennett's introduction of cod-liver oil met a need in many an instance—a need felt as badly and as often today; and despite our nuclein, our glycerophosphates, our albuminates, our lecithin, our other new aids, there are sick men galore who would be benefited by nothing so well as by a generous dose of oleum morrhuæ, thrice daily.

Keep the ashes cleaned out.

Here we find the master key to the whole machine. We may go far afield to seek the causes of disease, and the whole matter may be summed up in this one maxim: "Keep the waste cleared away."

Let the colon grow torpid, and then fecal matter accumulates, decomposes, and forms toxins. These are absorbed, traverse the circulation, permeate the framework, and every tissue, organ, function, and cell feels the deleterious influence. Vital resistance is weakened everywhere, and at the point most vulnerable the waiting microbes succeed in overcoming opposition—and local diseases begin.

With this master key Brunton unlocked the door disclosing the etiology of spinal diseases, Briggs that of mental disorders, Bulkley that of skin diseases, Hugh Blake Williams that of nasopharyngeal maladies, Risley that of affections of the eye, Talbot that of pyorrhea alveolaris, Babcock that of endocarditis; others, the etiology of renal, hepatic, gastric, nervous, pancreatic troubles. And many another door waits to be opened at its behest. One man says its application is "practising medicine"; and Metchnikoff declares that it postpones old age.

For twenty years I had *preached* attention to the bowels. Some years ago I had an attack of ileus, from impaction, and since then I have *practised* it. That I am young for my years, fit and capable as never before, alert and ready on the instant to tackle whatever comes to me in the way of work or pleasure, stronger as the years pass by, enjoying life so thoroughly that the mere fact of conscious existence is a pleasure, with the disposition to sing and dance had Nature not omitted to qualify me for those manifestations, and a constantly growing appreciation of this divine world and the innumerable pleasures with which its beneficent Creator has stocked it—all these may be attributed to the practical application of this principle.

O ye long-visaged, sad-eyed, mournful old grouches! Get a move on your bowels. Take a few pills; flush your colons; eat only fruit and drink only buttermilk, and keep pegging away till all the indican is out of your body, all the mercaptan out of your souls, and you begin to notice how brightly the sun shines, how the winter air sparkles, how rosy are the girls's cheeks, and how good the grocer's window display looks. Remember how you used to track rabbits? See your boys tumbling each other over in the big snowdrift—want to lick 'em for wetting their clothes, do you? Not much—you'd like to turn to and show 'em yourself, if you hadn't forgotten how to unbend.

A wise woman said men never wholly grow up. They shouldn't. When a man ceases to enjoy a boy's play, he ought to go and ask the undertaker to undertake him.

How would you like to die? Like Bryant's noble man, who "draws the drapery of his couch about him, and lies down to pleasant dreams"?

No. Give me the ending of that brave little consumptive. At the end, seeking to relieve the last pains—or, perhaps, in his own desire to "do something"—the doctor applied a mustard plaster to her chest. Noticing her desire to speak, he stooped down over the wasted form, and with her last living effort she said:

"Doctor,—much mustard—for little meat!"

There simply *must* be a hereafter for such heroic souls.

For what a man acquires, he may be dependent upon others; what he is, rests with him alone. What he obtains in life is but acquisition; what he attains is growth.
—William J. Jordan.

FAIR PLAY FOR NEW REMEDIES

Of the tens of thousands of new remedies put forth during the past thirty years, not more than one-tenth of one percent have proved of any therapeutic value. That is the estimate of F. E. Stewart, as set forth in a paper, in *The Medical Herald*, upon a proposed system of testing these novelties.

Dr. Stewart begins by adverting to the innumerable experiments that have been perpetrated upon the sick, trying out alleged remedies whose only basis has been the manufacturer's wish to make money and the printers' ink he has purchased. Doctor, druggist, and public have been alike to blame, but the doctor most, for he is the guardian of the interests of the patient confided to him.

Dr. Stewart's remedy is a cooperative investigation, in which the medical and pharmaceutic press shall participate. Their support and that of the manufacturing houses is essential. He demolishes the pretense of a distinction between manufacturing houses that sell goods, and the medical press that advertises them, the publishers of materia-medica books that describe them, the editors and authors who derive incomes from such writings, the doctors who use them and take fees therefor, and the teachers who receive salaries for their work. "What we want is honest commercialism on the part of all parties concerned." Unless we who are most directly concerned settle this question satisfactorily, the public will step in and settle it in its own way, which will not be the way we want.

"The solution is to be found in materia-medica standardization and the rendering of drugs of precision." Standardization, he rightly says, embraces adjusting finished products to fixed standards and devising means for keeping them there—a most important addition to the ordinary conception of the term.

Dr. Stewart devised the working bulletin system more than thirty years ago. This collects evidence for and against the remedy, presents it to those best equipped for studying it, pharmacologically and therapeutically, adding new evidence as it comes in. The greater the number of competent observers, the more nearly the personal equation is eliminated.

The objection to the working bulletin as carried out by a commercial house is obvious; but this he proposes to remove by the establishment of a Board of Control. This should represent the medical and pharmaceutic professions and press, and legitimate manufacturing houses, acting as a sort of professional clearing house.

The next objection brings up the question of controlled articles. Why should medical journals admit to their advertising pages articles they exclude from their reading pages? If they accept pay for "ads" of improper things they share in the graft as surely as if they admitted them to the editorials. Why should they make exceptions for salvarsan and adrenalin? Why should doctors prescribe these patented preparations, and not other patent medicines? Why should a name be the exclusive property of a drug firm as a trademark, when other trades make no such claims? Could Bessemer have trademarked the designation of Bessemer steel? Such a monopoly applied to all inventions would render progress in civilization impossible. The world would be owned by an aristocracy of inventors—or the owners of inventions.

These and other abuses might be lessened, he thinks, were the Board of Control to

cooperate with the Patent Office and the courts in the interpretation and enforcement of patent and trademark laws. Prices might be regulated and advertisements censored. Nonmonopolized titles should be used so that discussion of a remedy need not advertise its owner.

The Board of Control should be representative, impartial, and independent. Dr. Stewart suggests the present committee revising the Pharmacopeia. Its duties should be:

1. Censorship of advertisements in medical and pharmaceutic journals.
2. Censorship of all literature from manufacturing houses, including labels.
3. Determining what materia-medica products should be placed on the market.
4. Determining the therapeutic value of products by collective investigation and record them by working bulletins.
5. Cooperating with the Patent Office in the interpretation, application, and enforcement of the patent and trademark laws relating to the materia medica.

Dr. Stewart certainly has given us food for thought in this remarkable proposition. He has worked in this field for many years and has accomplished much, although the credit and the practical control of this has been largely assumed by others. . The matter is too important for a hasty approval, but it certainly deserves consideration and discussion.

One might succeed in explaining to the dullest of men the most difficult of problems, if he had no previous conception in regard to them; but it is impossible to explain to the cleverest man even the simplest matter, if he is perfectly sure that he knows everything about it.—Lyof N. Tolstoy.

TAKE IT TO YOUR LAWYER

Tom L. Johnson, the single-tax mayor of Cleveland, in his recently issued autobiography, "My Story," tells how he came to be a disciple of Henry George. One day he bought a copy of "Social Problems" to read on the train and went through it without stopping. He was so much interested that he procured "Progress and Poverty." The economic ideas presented in this volume seemed convincing, but he didn't want to believe in them, so he took the book to his attorney and asked him to read it carefully and prepare a "brief" of the arguments against the single-tax theory.

The brief was a failure and Johnson became one of the strongest advocates of the George theories.

I have often wondered why it is that so many able physicians and thoughtful practitioners are slow to accept the truths of active-principle therapeutics, truths which are so clear to us. I have come to the conclusion that it is because they do not consider them carefully or analyze them thoughtfully. If they did so, with minds open to conviction, either personally or by proxy, they would (most of them, at least) think as we do. It is always easier to follow than to lead; it takes time, trouble and disturbance of settled habits of thought, to master new ideas, and a change of method is attended by occasional discouragement—not enough, however, to arrest the energies of any man who is really determined upon better things.

The advantages claimed for the use of the active principles are either real or they are not real. It is not difficult to determine their truth or falsehood. Why does not the doctor subject them to critical judicial analysis?

Like Johnson, he can take these facts, these statements of underlying principles, and submit them to his attorney for a brief. The decision will rest upon the application of the simplest principles of logic to which the legal mind is trained. The attorney can not, of course, settle for you the practical methods of applying these ideas, but he can tell you if they are theoretically sound. The practical testing of the theories rests with you.

It is acknowledged that the alkaloids and other active principles, when procured in their purity, are more concentrated than the whole-plant preparations—that they are more potent, more definite in action, more uniform in dosage, less liable to decomposition or change, easily presented in definite and dependable dosage forms, more easily administered, less likely to cause disgust or excite gastric disturbance, more easily carried and dispensed.

To oppose these facts, assemble all the advantages claimable for galenic remedies, including their antiquity, their official recognition, the later (but variable) efforts at standardization, the claims for a mysterious "whole-plant" action as compared with the known and definite action of the drug "fragments." Add to these the force of "authority." Then go over again the reasons for adopting the active principles. Compare the two classes of preparations side by side, doing it thoroughly while you are about it.

You can do this yourself, of course, but if you distrust your own judgment, you can refer the matter to your lawyer.

We are willing to leave it to him. Are you?

I believe in work, hard work, and long hours of work. Men do not break down from overwork, but from worry and dissipation.—Charles E. Hughes.

STUDY YOUR CONVALESCENT PATIENTS

It's easy to be heroic. The man who dares death on the impulse of the moment finds it natural to do the daring-deed. To plunge into the swollen stream and drag thence the struggling child, to swat the hold-up man and rescue his victim, to head the charge on the gory field of battle—all these are more alluring and easier of accomplishment than to do without butter for a year and to wear old clothes, to pay off that mortgage.

The medical freshman may feel faint when he first sees the blood of the amphitheater, but before holidays he has learned to crave it and feels bored without the excitement of a "big operation." And how inexpressibly tedious are the teachings of the professor of physical diagnosis after seeing the swift, skilful work of the surgeon.

In after-graduation days this man finds the medical duties more interesting, and learns to key himself up to carry a fever case through the crisis—and then he drops. The battle is won, the enemy is routed, the victim saved, and then the doctor begins to feel the strain, and lets down. Convalescence comes as an after-climax. He makes his visits in a routine way and spirit, chats over the case and brags a little, but his attention is really engrossed by the next bad case, and he gives very little attention to this one. The patient is weak, querulous, apprehensive, ready to take strange fancies and to fly off on trivial occasions, and sorely pesters doctor, nurse, and family. To all these the aspect of the case is that of the doctor, and they grow impatient that the man who has been through so much and had so much done for him should be so unappreciative and so troublesome. They all need, and want, a rest from him and his crazy notions.

Before complaining of a lack of work, study the condition of your convalescents—it is worth your while. The fever is broken, but, still, a little lingers. Delirium has fled and he is conscious, but the mind still is struggling to establish its equilibrium—to find itself. A very little suffices to disturb it—an unwise visitor with tales of woe, of unexpected relapse when all seemed going well; an ill-chosen meal, clogged emunctories, disturbance of slumber by a whispering watcher, a little too long sitting up, an early talk over business, a dumping of domestic worries, the crying of baby who has merely bumped his precious nose but makes fuss enough for a broken leg, innumerable things trifling at other times suffice to work a real injury to the convalescent.

Then there are the sequences and consequences of the malady, the debris to be cleared away, the dead tissues encumbering the body and threatening to break down into abscess with the aid of the omnipresent microbe. Morbid processes may be put into operation by the disease, and evil tendencies—psychic and moral as well as somatic—may be aroused. Weaknesses heretofore unnoticed may become manifest now or be newly engendered by the disease just past. The habit of dependence upon alcohol, the loss of self-reliance, hypochondria, valetudinarianism, and many another undesirable trait may be dated from any serious illness.

Whose fault is it when a child "cured" of rheumatic fever develops valvular heart disease? Or if after scarlet-fever comes nephritis? Or if after any enfeebling

malady the defective eye accommodation irritates one into chorea? Or if tuberculosis grows into recognition after measles, or mental aberration is revealed during convalescence from typhoid fever? Or if after a broken leg a man remains a self-indulgent loafer?

Study convalescence. Learn the why of every manifestation, the real reason for every symptom and emotion. Before prescribing a hypnotic ask why such a remedy is needed. Scrutinize the great organs of elimination, and be ever ready to supplement defective action on the moment, before an intoxined blood has had time to work its deleterious action upon the sensitive, delicate, frail, and most vulnerable tissues, especially of the nervous system. Be ready to recognize in a local manifestation the underlying demand for more or better or more utilizable nutrition. Why did the patient look so longingly at that big dill pickle the child was devouring? Why does that girl pick plaster from the wall and eat it? Why has rapid decay attacked her teeth?

Was there reason in the old representation of the doctor as a grave old grouch who persistently smelt at his gold-headed cane? Surely, a good sense of smell is a fine aid to the diagnostician. A big nose is an evidence of a disposition to be curious, and curiosity discovers many useful things the careless never dream of. The gold cane-head attracts attention from the doctor and leaves him to make his investigations unhampered. In the olden days this bulb used to contain something like the aromatic vinegar, which was believed to ward off infection. Nowadays we might well use formaldehyde in a similar manner.

Yes, by all means study convalescence—but the only way really to learn to comprehend this state is to go through a serious, perilous fever yourself. Then you will learn—and not till then—the real meaning of what I have been endeavoring so imperfectly to convey to you: the innate feebleness of the body, and more yet of the mind, the overweening influence of trivial things, the wobbly state of all the faculties, the neglect of nurses, and the tire following exercises that seem, and are, as nothing to the robust.

What a field is here for our sister, the nurse. Surely, as the night follows the day, there is coming swiftly a reaction against the training that makes her a competitor of the doctor. She will, for instance, no longer be permitted to treat school-children or to supplant the physician in other ways, as she now is doing, when at last he awakes to the facts of the situation and ceases to advise employment of such a one. Her greed and callousness to suffering have already done much to alienate the goodwill of the public, and the withdrawal of professional support will do the rest. A nurse, asked what was to be done about those who could not afford to pay twenty-five dollars a week for her services, freezingly replied, "Let them do without!" Just imagine the physician assuming that attitude—and the verdict of the public on his case.

Inseparable the ideal of the priest, the altruist, is from that of the physician. He must be a benefactor to the race, who saves the dying and relieves the suffering. He can not put his work on a money basis—and doubly repugnant is the idea of tender, merciful, compassionate Woman denying her ministrations to all needing aid until the cash has been counted down into her greedy hand. Beside the nurse who takes such a stand the woman who sells her kisses is decent; for kisses are luxuries.

The more we do, the more we can do; the more busy we are the more leisure we have.—Hazlitt.

CLEANING HOUSE IN WINTER TIME

In the distant future, when men, and especially women, will have become so civilized that they will do things right and at the proper time, house-cleaning will be done in midwinter. Then is the time when the deadly germ is least active, when the dust and dirt are less lively, and especially is it the best time to swat the fly. During the cold season the fly hibernates, but as soon as spring opens he gets busy and proceeds to obey the precept Roosevelt so greatly admires.

Every fly, i. e. lady-fly, killed now means a million, more or less, flies next summer. Just now the disease-bearing pests are

lying about in corners, on the tops of door and window frames, and in closets. Get busy now. Go about with dustpan and brush and gather them in. The broom will reach those wintering on the ceilings. This done thoroughly, there will be no propagation of the early spring brood in the house. As the warm weather opens, the screens are to be put on early.

The house guarded, means should be taken to dispose of the outsiders. Two ways of disposing of the latter are open—to catch the flies in traps, and to prevent their breeding by keeping stable manure and other rubbish covered. Incredible numbers of flies are caught in the wire traps. The way to get rid of any nuisance is to give it a money value—and we import flies from Germany to utilize them for chicken feed. Why not use the very abundant home product? Chickens require animal food to provide for their own sustenance as well as their egg product; and flies do very well. Let this be understood, and let the housewife comprehend how large a supply may thus be obtained, and the fly-trap will soon be a universal part of the farm equipment. It is simple and inexpensive, and quite efficient.

If thou workeſt at that which is before thee, following right reason seriously, vigorously, calmly, without allowing anything else to diſtract thee . . . if thou holdeſt to this, expecting nothing, fearing nothing, but satisfied with thy present activity according to nature, and with heroic truth in every word and sound which thou uttereſt, thou wilt live happy, and there is no man able to prevent this.—Marcus Aurelius.

DO NOT BE STAMPEDED

Above all men, the doctor should always have his wits about him. Especially is this true when he has an emergency to deal with, when he should be prepared to use every particle of gray matter which he has, and be just as free as he can from the excitement and anxiety produced by the attitude of those around him. However much he may sympathize with the sorrowing friends, who can see no alternative except that of disaster in the condition of the beloved patient, the doctor must and should keep cool. If he loses his head, all is lost, in many instances—this case, other cases, reputation, professional standing, money, and too often the life of the patient himself.

Here is an illustration:

A doctor recently wrote us that he was giving to a child, suffering from an ordinary cold, some tablets of calx iodata, together with a little tincture of aconite in small doses. Now, this doctor had dispensed thousands of tablets of the iodized calcium, and always with good results, and therefore had faith in it. But one night he was called up by telephone by that child's father, who was in a state of great excitement. The baby, he said, had just taken one of the tablets, and its mouth and lips "were all red," while the spoon with which the tablet was administered had turned the water in a glass red also. He wanted to know whether the tablet was just the same as the others which the doctor had been giving him before.

The doctor was stampeded. He rushed to his automobile and covered the five miles to the patient's home at record-breaking speed. He rushed into the house, got out his stomach-tube, emptied the little patient's stomach and worked over it for an hour or two, although there were no disturbing symptoms aside from a slightly subnormal temperature—the result, presumably, of a too vigorous use of the tube.

Most of the family were disturbed and excited. They were sure that the doctor had made a mistake. A day or two later another physician was called in, and he cheerfully assured them (being "the other doctor") that *of course* a mistake had been made. Then a sample of the red solution was taken to the druggist, with the request that it be sent to a laboratory for analysis. The long and short of the story is, that the entire community is now stirred up and the reputation of our friend, Doctor Number One, has been seriously shaken.

Now, what are the facts? A little investigation showed that the child was at the time also taking a "candy laxative" containing phenolphthalein. One of these laxative tablets had been administered not long before giving the calx iodata. Presumably, it had been chewed up, being

"candy," and baby's mouth had not been entirely washed clean of it.

What happened? Phenolphthalein is one of our most delicate chemical reagents, and in the presence of an alkaline solution a most beautiful rose-red color developed. Baby's mouth had involuntarily been used as a "test tube," and the chemist (?), not being "wise" to the nature of the reaction, had become alarmed.

Baby was unharmed, of course, but badly scared, we can guess. Of course it is not to be expected that every practising physician will remember all the chemistry which he learned at school, but this thing he should learn, by all means, in the greater school of medical practice: To keep his eyes clear, the cobwebs out of his brain, and above everything else, *to keep his nerve.*

If our friend, the doctor, had gone quietly into the sickroom, sat down for a few moments at the little one's bed, felt its pulse and observed its regularity, noted the fairly natural respiration (remembering the bronchitis), the absence of pain, distress or other evidence of acute danger, he could then have turned to the members of the family, with perfect confidence, and said: "There is nothing to be alarmed about, the baby is all right, and you do not need to worry." Some simple remedy could have been administered, as much to relieve the minds of the parents as to quiet the overexcited child, and the doctor might have gone home, looked up his books, and settled the nature of the disturbing "reaction" at his leisure.

Keep your nerve. Don't be stampeded. Be the master of your own spirit, and patients will grow to have more and more confidence in your ability *and in your judgment*, as the days go by. It is the unfailing serenity of the old doctor, who is unruffled and self-confident in the presence of almost any emergency, which makes people respect him, love him, and trust him as they do. The first and greatest lesson of the young physician is the necessity of cultivating that attitude—one of self-faith and equanimity. It is often a hard lesson to learn, but the more quickly it is learned, the less trouble he will have and the more quickly the success which he deserves be his.

Between dreaming of tomorrow and regretting yesterday there is no time for doing anything new.—
The Silent Partner.

WHO SHALL TEACH?

In the editorial department of *The Eclectic Medical Journal* for February, 1912, John Uri Lloyd contributes an interesting paper under the above title. His plea is for the small medical colleges, where the teacher, the true instructor, comes in close relation with the pupil: "Back to the school, back to the teacher, close to the man who knows," will again become the slogan of educational circles.

Curiously enough, the most significant part of this editorial is found in the last two lines: "Give us a man, is their constant cry. From the country comes the response. Lloyd." ["Lloyd" was the signature.]

Now, although Professor Lloyd did not mean it in this way, we accept the wording. Give us a man, and let that man be one who, like John Uri Lloyd, is fully worthy, qualified in every way for the responsible position of teaching; honest of purpose, erudite, full to overflowing with the knowledge of his subject, which comes only from the man who actually does things, and not simply from the man who reads about how other people did them.

Strong men can always afford to be gentle. Only the weak are intent on "giving as good as they get."
—Elbert Hubbard.

ANENT DRUG DETRACTION

Say anything, no matter how ridiculous, say it strongly enough and keep saying it, and you will find people to agree with you. Berkeley still has adherents to his suggestion of the nonexistence of matter. Assert that salt, or tea, or bread is a rank poison, and gradually people will listen, and assent, and swear by the statement, finally ending by making a creed or a fetish of it, and proscribing all who withhold concurrence.

Originally presented as a joke, the discrediting of drugs was laughed at as any quip ridiculous in its nature would be.

The resulting hilarity encouraged other jokesmiths to repetitions innumerable, and at last people began to take the matter seriously. Nobody seemed to realize that public opinion was made thus, but gradually the impression took shape, grew into a belief, and displaced the ancient faith in doctor and drug.

Many aids came to deepen and confirm this change. Outside the lines of the profession arose numerous special methods of treating disease, by water-cure, later denominated hydropathy; by various forms of electricity, by massage, graduated exercises, dieting, vibration, what not. Those who introduced these newer methods knew little of pathology, or even of physiology, and nothing of drugs; consequently they denounced the latter in the cocksure method characteristic of crass ignorance.

Later the merits of the methods of these innovators were investigated by members of the medical profession, who thereupon adopted them as specialties; and in accordance with the universal custom of the exclusive practician advocated them from the personal standpoint and utilized them similarly. By this we mean that in their addresses and writings they did not discuss the subject from the standpoint of what was best for the patient, but from that of what could be done with the remedy. Profession and public alike failed to realize this all-important distinction. They fail to realize it still. My good friend tells of the effects of electricity in treating rheumatism, but ignores the fact that far better results follow the use of certain drugs. Excuse—he is not discussing the *best* treatment of rheumatism, but its treatment by electricity. See the difference?

Then came the deluge—of suggestive methods and curiously devised new designations for all the ancient forms under which quackery had flourished from time immemorial. Vitapathy, naprapathy, chiropractic, and a host more arose to catch the eyes of those who are always on the lookout for "something new." With these came also the folk who adopted the livery of Heaven to serve Mammon, and appealed to the religious prejudices of the masses. They took as their text the adjuration to the ancient Hebrews, to trust in the Lord and not in the arm of the flesh, by which their politicians sought to detach the multitude from their attachment to the Egyptian monarch in his contest with Assyria. They proceeded to adapt detached texts to modern days, and thereupon found a system that consisted in neglecting everything known to man and leaving disease to work its way unchecked, while, ostrich-like, the victim hid her head in the sand, and waited till the Almighty put in the patient's mouth food she was too lazy to seek for herself. We say "her" advisedly, for quackery flourishes on the unreasoning faith of woman.

Another element enters into many of these medicoreligious cults. The open and acknowledged worship of Priapus has long since fallen into desuetude—under that name, that is: it has never ceased in reality, and must ever remain as an important element, in whatever disguise it may masquerade, of the cults that attract human beings. Scarcely a month passes in which we do not have here in Chicago an expose of some one of these, in which the sex element is openly or vaguely manifested.

There is a possibility of reversion in every human being. The stately prime minister on whose nod rests the welfare of an empire, the haughty duchess in her jewels and robes, are brother and sister to the savages who dance naked about the fires in their tribal orgies. What lies concealed behind the masks all men wear? One of childhood's lessons, that is worn deeper into the heart with the passing years, is the divine wisdom of Him who prayed—LEAD US NOT INTO TEMPTATION.

The law has aided this movement materially. Clumsily constructed, the ordinances designed to raise the standards of medical practice have thrown grievous obstacles in the path of those who designed to follow legitimate lines, while they leave the way open to the quack, with the one exception that he is debarred from utilizing drugs. His opportunity is obvious—he asserts that he does not want to give drugs; they are useless, injurious, and irreligious besides. Surely—when the price of sealskin is pushed up out of sight the

merchant supplies other furs and does his best to make them the fashion—and never forget that the quack is a merchant and governed by mercantile maxims.

So far all is comprehensible, but it follows a development that requires explanation. The obvious resource for the medical profession would seem to be the development of that drug therapeutics that is legally given over to it as a monopoly. But, instead, we see many of them meekly chiming in with the quacks and even going beyond them in the denunciation of drugs. The measure of a physician's prominence among his fellows seems to be the vehemence with which he denounces drugs and lauds anything and everything else that may be included under the term therapeutics. Who are they who participate in this senseless, general and sweeping denunciation?

The surgeon, the electrotherapeutist, the hydropathist, the masseur, the physical-culturist, the sanatorium owner; the x-ray, radium, vibration, metallo-, blue-light, red-light, and all other kind of drugless therapeutists. Each of these practises a special form of therapy and has an obvious monetary interest in abusing drugs. Not one of them really knows drugs, since if he tells the truth he does not use them, and hence has not the daily experience that enables him to judge of their relative values. Moreover, the man who deliberately eschews all other forms of therapy and devotes himself now and forever to one only means of treating the sick evidently has such a predilection for that particular one as to render him unfit as a judge. Further, he condemns the methods of the other non-drug therapeutic specialists as unreservedly as he does the materia medica. Take ten such, and as each condemns the nine others, if their testimony against drugs is admitted, we should give equal weight to their word against the drugless methods.

Remain the diagnosticians and pathologists—the Cabots and the Oslers—who vie with the surgeons in their indiscriminate abuse of drugs. Why? The answer lies in the study of the human mind and the recognition of its tendencies and limitations. The pathologist forms his ideas of disease from his investigation of the dead. To him disease is anatomic; he sees end-results only, instead of disordered function. He recognizes the destruction of tissue-elements that have made continued life impossible, and rightly asks if any mere drug can possibly make new cells grow where the old ones have disappeared. Pessimism is a direct and natural result of his studies, and the more versed he is in his special work, the firmer must grow his unbelief.

The diagnostician tends to lose his interest in the patient the more he becomes engrossed in the case. He must always feel a sense of disappointment, of the incompleteness of his work, when his conclusions are not verified by the autopsy. Recovery spoils the case. Besides, he has no time or disposition to study drug action, which is out of his line.

The only real drug specialist is the old-fashioned, obsolescent family doctor, and he doesn't know it—or is too modest to advance a claim. Nevertheless, he holds the key to the situation. It is he to whom we must look for that recognition of the truth that will restore confidence in drugs and place their use on a better foundation. What is this foundation?

Many of our own number are slow to realize the change that has occurred in the fundamental conception of the practice of medicine. Of old, drugs were given for no better reason than that they seemed to do the patient good. Why or how was not known, or but mistily guessed. Certain remedies seemed to relieve a cough; others were found that did so, and when one failed, the others were added, until the patient improved. Many still content themselves with mixing squill, senega, ipecac, antimony, paregoric, tolu, and some salt of ammonium or the bromides, and treat all coughs with this combination. Niemeyer said, caustically, that, when one considered that brown mixture and sal ammoniac formed one-third of the prescriptions put up in a German drugstore and physicians not only prescribed but devoutly took this mixture themselves, it was difficult to realize that the only effect it could have was to disorder the stomach.

Now we have learned to give one remedy to soothe an exaggerated or needless cough, another to provoke more coughing; one to excite more of the mucous secretion on the respiratory tract, another to check excessive secretion, and so on; and we at least know why we give each drug, and we prescribe it when the indication shows its particular influence is needed.

The indication is not now the name of the malady, but the disorder of physiologic function discovered by examination of the patient. One disorder may be evident in many diseases, and in all require similar treatment. Hyperpyrexia is a peril in smallpox or in pneumonia, as well as in sunstroke, and demands the same treatment. No matter what may be the local manifestation of fecal autotoxemia, that causal element must be removed as a necessary step in the treatment.

Such a procedure is very far removed from a mere study and grouping of the symptoms, *à la* homœo. We never stop to form the image of the malady in our minds, but seek to detect the disorder, the disharmony in the physiologic operations, to find the cause and to apply the remedy. This may consist in removing foreign matters, invading germs or body waste; in strengthening a function too weak or in moderating one too strenuous. But it is studying living function instead of dead tissue, in utilizing the patient's vital forces rather than applying mechanical or chemical agencies from without the body.

The whole matter is summed up in the statement that modern medicine is founded on living physiology rather than on dead anatomy.

Character is power—is influence. It makes friends, creates funds, draws patronage and support, and opens an easy way to wealth, honor and happiness.

—J. Hawes.

A LUCKY STONE

Here's a new one, and so slick that I have been laughing over it all day. An eastern chap offers to sell any applicant a lucky stone for a dollar. He tells a pretty story of how these stones are secured in Ceylon, after daring all but certain death from cobras, tigers and fevers, gives testimonials from sixty pleased purchasers, and winds up:

Oriental Lucky Stone Brings Luck to Possessors

If you want Health, Happiness, Money, Prosperity, Love, Wealth, Beauty, Fame, or any more other good things in life, now is your golden opportunity to seek out for them. But —and this is a word of genuine caution, you must act promptly, as the supply of the Oriental Lucky Stones is very limited. Sit right down, Now, at once, if you really and truly want all the good luck in the world, and send a dollar for the stone. It will be sent you, all charges paid. Carry it with you all the time and watch results.

You'll never regret it.
Your purse will be fuller.
Your eyes will be brighter.
Your health will be better.
Your happiness will be complete.
You will be prosperous and cheerful.

Gee Whiz! All that for a dollar! Honest —I can hardly restrain the impulse to send that man my dollar—only that Postmaster Hogan won't trust me for a money order. Just see what the stone brings its lucky owner: Health—I have. Happiness—as much as any reasonable man may expect. Love—oh, you quit—tee hee! Beauty—well, it *is* hard to keep the girls away, but perhaps I could stand a dollar's worth more. Fame—??? But, Money—and Prosperity!!! Say, Hogan, be a sport; let us have that money order, and wait till next pay day for the plunk. Now, if I only *had* that lucky stone he would do it, sure.

The sixty testimonials tell the story. Some are jubilant, others merely hopeful. But some show the influence of that awakened hope that brings its own fulfilment, that faith that makes whole.

One says "Already I feel different and am hopeful."

Another: "I was so happy last night to receive the beautiful Stone. I was expecting it, afraid the letter would go astray, but though sick I opened the letter very carefully and beheld the pretty stone so clear. For three days I have been improving, which is, you can imagine, so blessed to me, my eyes better and sickness all over, and I feel so grateful. A thousand thanks." The mere expectancy of the talisman seems to have worked a cure.

"I received your Oriental Lucky Stone and I have been wearing it ever since. I feel a change in my life."

"I believe the luck is coming already."

"Everything seems much more harmonious."

"When I touch it, it produces a tingle and hot sensation through my fingers and extends all through my body and nerves. I can see a change gradually taking place in my affairs for the better."

"First I found a dollar, now I am out nursing, and when I am finished here I expect to go to another place."

Pathetic. They really believe in their talismans, as faithfully as did the dwellers in ancient Agade, eons before Abraham left the plains of Shinar and journeyed into the hill country of Canaan. Truly, human nature changes little with the lapse of time. And, yet, how transparent is the artifice, which is the old one of the race tout who gives his tips to two betters exactly opposite, and since one must win, waits to claim his share from whichever happens to be the lucky one. As for the other—well, does the dub suppose anybody can guess every time which horse will win?

If six hundred lucky stones are sold to people who have enough faith in them to invest a dollar each, it is reasonable to reckon that one out of ten will have some luck, and they will surely attribute it to the stone. Indeed, most people have what may be termed "luck" come their way, probably as often as they have bad luck; and if they believe in the stone they will think of the good and minimize the bad. A bit of Christian science in that. After all, though it is a swindle, I am not sure but that it is worth the dollar to many of the purchasers.

THE PERSONAL SIDE OF THE DOCTOR'S LIFE

III. Habits—Good and Bad

Habit with him was all the test of truth;
"It must be right: I've done it from my youth."
—*Crabbe.*

Biologically speaking, the distinctive test of habit is plasticity. We are all of "clay," and so is everything that we handle. The new coat soon gets its "habit" of wrinkling at certain places, and no amount of pressing can eliminate these wrinkles completely. The river establishes its channel in a certain course, and only a flood or an earthquake can change it. A man becomes accustomed to certain tricks of walking, talking and standing; and to certain habits of thought and reasoning; and to certain faults; and unless he is "caught young," like Johnson's Scotchman, only the grace of God can make a different man of him.

The "habits" of thought, which determine the character of a man's every action, are due to the plasticity of the nervous "connections" through which the mental lightning traces its course. If this nervous "clay" has become hardened by habit, loses its elasticity, refuses to yield quickly to the hand of the potter-electrician, Mind, then every reflex influence, every sensation coming to the man from without produces its uniform, unvarying response, and he becomes an automaton—perhaps perpetuating his vices from year to year, while adding no new and compensating virtues.

There are some habits, that we should cultivate, others that we should shun. Among the former class the following are worthy of noting:

1. *Habits that make for perfection of the body-machine,* which make you physically attractive to others and give you power to carry your enterprises through to success. To stand straight; to look men in the eye; to speak clearly and convincingly; to conserve strength; to act with power and purpose, and with economy of time and effort; to breathe right; to think clearly—these are habits of body which you should cultivate.

2. *Habits of studiousness.* We should drill ourselves to use every waking hour in some definite effort at self-betterment. Buy books, or if you cannot afford to buy, borrow. Read the magazines. Even when you cannot find time to read you have the great open book of nature at hand and you should be constantly studying therein. Like Socrates, incessantly question others, picking up the scraps of wisdom which are not found in books.

3. *Habits of interest in others.* Nothing broadens character so much as thinking of others. Cease complaining of your own lot, and rise to a higher level through the

bigness of your sympathies. Make these habits an essential part of your life, so that you are always ready with a smile, a kindly word, a hand-shake.

4. Habits of thoroughness. There is no single vice which so contributes to failure as leaving work half-done; failing to understand a subject fully, or imagined inability to carry any matter through to entire completion. Master the details. Go over them again and again, until you know every step in the surgical operation, or every stage in the disease and the therapeutic indications for every phase of every stage.

5. Habits of self-control. Don't give way to temper, fly into a passion; don't sink under misfortune. Temper the fine edge of your spirit so that it can go right through every obstacle and never get a nick. This may take years of self-study and effort, but it is worth it.

6. Habits of courage. Many a man has *almost* succeeded, failing because he has given up the struggle before the battle was won.

"Be bold! be bold!" and everywhere—"be bold;
Be not too bold!" Yet better the excess
Than the defect; better the more than less;
Better like Hector in the field to die,
Than like a perfumed Paris turn and fly.

Among the habits to be avoided, these are important:

1. Laziness, which does not necessarily mean unwillingness to do *any* kind of work. Usually it is unwillingness to do the work one ought to do. You ought to make your office attractive and provide it with every convenience for your work. You ought to master all the available facts about, say, infant feeding. You ought to know how to perform an operation—as that for hemorrhoids. You ought to do or know a hundred other things. But you're in the habit of dropping in to see the boys at the lodge; or playing a game of bridge; or going fishing on the quiet days. Cultivate the positive habit of concentration.

2. Gossip usually means talking too much. Bridle your tongue. Talk about your patients to no one except those having a proper and legitimate interest in them. A gossiping doctor is pretty sure to be involved in scandal sooner or later, with loss of reputation and practice. Replace gossip with study. Go to your records with the case and to your books to learn more amout it. Thus, after a while, work it up and present it to your society. This is *your* outlet for expression.

3. Sensuality. More physicians' careers have been ruined by women than through any other cause. The temptations are often great, but only a fool or a weakling will yield to them.

4. Habit-drugs. Why is it that so many physicians become alcoholic sots or slaves to morphine? It is because the insidious chains of habit are forged so easily and, at the beginning, worn so lightly. Especially is this true of alcohol, which at the beginning is used by many physicians simply as a whip to drive them through a period of exhausting work. From being a convenience it becomes a necessity. In the majority of instances the physician who has become a slave to the alcohol habit is already ruined. He may for a time hold his place in society and in the profession, but sooner or later he is bound to go into the scrap heap.

The same is true of morphine, to which so many medical men have become accustomed within recent years. It is one of the human enigmas that physicians, who know the danger of the habit-forming drugs better than any other class of men, constitute so large a percentage of habitués.

Habit may be our master, binding us with cords so tenuous that we are unconscious of them—yet binding us securely just the same.

Habit may be our servant, enabling us to perform millions of necessary acts without conscious thought and in a minimum of time. As such it should be made right from the start, that the actions may be right through all time—quickly and accurately performed and perfect in every detail.

The wise man turns over to the habit-machine the performance of life's unnumbered details, which, in their aggregate, make up the largest part of his daily tasks. If he gets the "instinct" of doing "the right thing at the right time" thoroughly instilled into him, he will not be tempted by

SURGEON-GENERAL RUPERT BLUE

Whose brilliant work in the United States Public Health and Marine Hospital Service led President Taft to promote him to the position of Surgeon-General in that important Government Department, to succeed the late Surgeon-General Walter Wyman.

his appetites, and his natural ambitions will be aided, not impeded, by his human impulses.

The difficulty in modern medicine is not to teach men the powers of drugs, but to get rid of the old vicious habit of rash and blind prescribing with little idea of the why, and none of the insight into action.

THE DEADLY PENCIL

How people do hate to be reformed. The states are ordaining the abolition of the common drinking cup, and the railroads respond by taking away the cup and letting travelers do without. If timely warning had been given, each might have provided an individual cup; but by the time another trip is taken the incident will be forgotten and the same annoyance experienced. In time some road will bethink itself and provide the cups, as something to advertise. The rest will follow, and a real improvement will be established. Then we'll wonder how we ever could have been so careless—culpably so.

A greater peril lies in the pencil. In school, Mary comes back after a siege of diphtheria, and borrows Jennie's pencil, pokes it into her mouth to moisten the point, and returns it laden with infection. Scarlatina, measles, mumps, and, worst of all, syphilis may be thus transmitted. Adults are as bad as children in this respect, and the disease last mentioned is more likely to be thus passed along.

There seems to be no way of meeting this evil except that of educating the community by constant reference to it.

LET US STAND TOGETHER

If ever there was a fool stunt it is for physicians to blackguard each other. It does no good—no normal man can feel aught but disgust at a man who is decrying another, even if there is truth behind the tale. The more we hear another man abused, the stronger grows the inclination to take his side, or at least to wait till we hear his side. Meanwhile we realize that the man who is talking behind the other's back is apt to talk about us behind our backs. But how our hearts go out to the good fellow who simply refuses to believe evil of his brethren. "Dear old Doc; he is so good himself he can't see anything but good in the rest. Here that new man has been telling all over town what an old fogy Doc is, and all Doc says is, 'When he knows me better, hope he will not find I'm so bad.'" Or else, maybe, the good old doctor suggests that the other man didn't really mean what he said, but was just feeling dyspeptic and bilious.

Besides, it doesn't pay. The other chap can talk as well as you, and about as many people will believe him; so the net result is that you each weaken the other and help the doctors who take no part in the slanderous war. It is no advertisement of our own qualifications to run down somebody else's. It reveals the malevolence of our spirit, and invites reprisals. Most people have enough troubles and quarrels of their own, and few feel any incentive to take up others' squabbles. They hear your invectives with impatience, and discount them to your disadvantage; then when they hear your adversary tell his tale, they are predisposed to sympathize with his side.

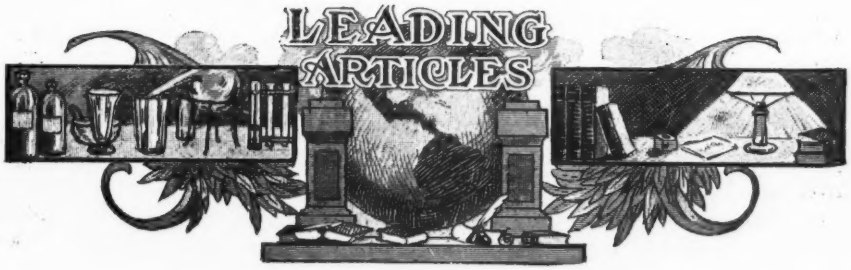
Of all classes of men, doctors are most necessitated to stand by each other. We have arrayed against us many and powerful foes, who are devising every means to break through our defenses and take away our practice and our income. Never was there a time when they were so active.

From our revered forefathers we have inherited as a sacred legacy a trust in the privileges and immunities as well as the knowledge and duties of our profession. We owe it to them, to ourselves, and to our successors to preserve and transmit this inheritance unimpaired and enhanced in value as our contribution to the common stock. This we can do by cultivating the fraternal sentiment, by considering the repute of every other member of the guild as our own. Stand up for a doctor because he is one; and every other will feel compelled to stand up for you. If any seeks to malign you he will meet the instant reprobation of his fellows, because you have so acted as to make all your friends.

Is it nice to have all the rest of the profession like and praise you? Well, just like and praise them, and see what comes of it.

DR. CHARLES E. De M. SAJOUS

The brilliant Philadelphia physician, author, and medical editor, whose work on the "Internal Secretions" has given him international fame, and who succeeds the late Dr. Frank Foster as editor of The New York Medical Journal.



A Study of Digitalis*

By H. J. ACHARD, M. D., Chicago, Illinois

EDITORIAL NOTE.—Our knowledge concerning digitalis is being entirely recast. Many of the statements about this drug which are still regularly reproduced in every recurring edition of our textbooks have been shown to be purely legendary and without scientific foundation. We are learning more about its preparation, more about its active principles, more about its action. Some of this newer knowledge, the fruit of careful study and individual experimentation, will be found in this paper.

SOME two hundred years ago Haller said concerning digitalis: "*Nobis ignota, mihi suspecta digitalis*," that is, being uninformed about it, I am suspicious of digitalis. This suspicious attitude toward the drug, the irregular action of which we have since learned to account for at least in a measure, prevailed far into the past century. Nevertheless favorable and even enthusiastic reports were occasionally published, one of the most important of which is the "Account of the Foxglove and Some of Its Medical Uses" by William Withering[1]. About the middle of the last century digitalis was especially investigated by Traube, who concluded, from the results of his experiments on dogs, that digitalis produces a primary strengthening of the heart work. Under the impetus of experimental investigations, the clinical uses of digitalis became more definite and purposeful ("*zweckmässig*"), until it is now one of the comparatively few drugs the value of which is generally acknowledged. Thus Huchard[2] says that digitalis is, and remains, the great heart remedy; to Osler[3] it is one of the dozen drugs the uses of which repay a lifelong study; while His[4] quotes a German aphorism to the effect that the experienced physician can be distinguished from the inexperienced one by the way in which he uses digitalis.

Beginning of the Pharmacologic Studies

It is only with the determination of the effective constituents of digitalis, especially of the leaves, that the action of digitalis was more clearly understood. Schmiedeberg[5] isolated as the most important constituents the glucosides digitalin, digitoxin, digitophyllin, digitalein, and digitonin; but in 1891 Kiliani[6], to whose investigations we owe most of what we know about this question, showed that Schmiedeberg's digitalin is a mixture of true digitalin and digitoxin. According to R. Freund, Kiliani differentiated digitoxin, which is insoluble in water, from the water-soluble digitonin and digitalinum verum; but since then he has said that digitonin is not soluble in water (l. c., Vol. 237).

Of these substances, digitoxin, which corresponds to the French "digitaline crystalisé," was considered by some authors

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[1] "Tracts and Memoirs," London, 1822, II, p. 103; cf. J. H. Pratt. Reproduced in *Boston Med. & Surg. Jour.*, 1910, vol. clxiii, p. 279.

[2] cf. R. Freund, reproduced in *Mediz. Klinik*, 1907, No. 21.

[3] "Modern Medicine," Phila., 1908, V, p. 267, cf. Pratt.

[4] *Ther. d. Gegenw.*, 1908, p. 433, cf. Pratt.

[5] *Arch. f. Path. & Pharm.*, III, 1874, cf. R. Freund, l.c.

[6] *Arch. d. Pharm.*, Vol. 233, 1891.

as the most important of the digitalis bodies. Most physicians, however, at least in Germany, preferred the old-established method of using the leaves themselves, either in the form of powder or of an infusion, while in this country the tincture and the fluid extract appear to have been given the preference. This use of the dried leaves, themselves, instead of the active principles, was, at least on the part of some authors, deliberate. For instance, Hare[7] asserted that the good results obtained from digitalis depend chiefly upon the complex constituents of the drug, and not on the presence of any single derivative. So, also, Roth[8] claims that the employment of the glucosides, one and all, is not to be recommended.

On the other hand, Hoepffner and Fraenkel,[9] while speaking of their results with digipuratum (extractum digitalis depuratum), say: It is easier to carry out energetic digitalis treatment by means of the purified extract than by the use of digitalis leaves, the composition of which is not constant, and to do so without fear of producing toxic symptoms through cumulative action. The achievement of energetic and rapid digitalis action is the criterion of a good digitalis preparation.

If we grant, for the present, the justice of the assertion that the preparations from the whole leaves are perferable to any of their constituents, it nevertheless remains true, as J. H. Pratt (l. c.) has pointed out, that the vital importance of having active preparations of this life-saving drug does not need to be emphasized. "Inert digitalis can be compared to a life preserver that will not float. The tragedies caused by the one in disasters at sea have been duplicated by the other in many a household."

Are the Dried Leaves Preferable

To the employment of the dried leaves or their representative preparations, it has long been objected that an exact dosage is impossible, owing to their varying content in the several effective constituents. Moreover, corresponding with these variations, the effects obtained from the exhibition of the entire drug may vary to a degree that sometimes is little short of disastrous, since some of its active principles are antagonistic to each other. (See, for instance, W. H. Porter[10]). H. A. Hare[11] says that the physiologic effects of digitalein and of digitoxin are identical with those of digitalin, *except* that they do not stimulate the vasomotor center or the pneumogastric apparatus, and so do not directly raise blood pressure or slow the heart. In other words, they increase the force of ventricular contraction. The effect of digitonin is to depress the vagus nerve; so it antagonizes the vagal effect of the digitalin and prevents digitalis from slowing the heart to the extent that would result from the use of digitalin alone. It also depresses the heart-muscle.

In 1874 Ferrier[12] showed that in improperly preserved leaves harmful products of disintegration are formed, as, for instance, digitaliresin and toxiresin, which produce convulsions by their action upon the brain. Focke, who has devoted years to the study of digitalis, and who published his results principally in the *Archiv der Pharmazie* and in *Therapie der Gegenwart*, has shown that the preparations of the leaves vary in the number of glucosides present as well as in their strength, depending upon a great many factors, such as the geographical location, the age of the leaves (first or second year's growth), the time of harvesting (before or after flowering), the meteorologic conditions, and so on. Furthermore, Freund showed, as did several other investigators, that improper drying and careless preservation of the leaves causes them to lose much of their effectiveness; especially does the presence of moisture in the leaves cause a rapid loss of active principles, probably due to the action of ferments. Leaves which, when dried, contain 8 percent of moisture lost three-fourths of their strength at the end of one year. On the other hand, leaves that were

[7] "Ann. of Univ. Med. Sc.," V, 1896, cf. Sajous, "Analytical Cyclopedia," II, 1902, 470.

[8] *Mod. Mat. Med.*, 1895, cf. ibid.

[9] *Muench. Med. Woch.*, 1908, No. 34, p. 1774, cf. Merck's "Ann. Rep." 1908, xxii, p. 180.

[10] *Amer. Med.*, 1900, Apr. 27., cf. Sajous, l. c. p. 472.

[11] *Therap. Gaz.*, 1897, Aug., cf. Sajous, l. c.

[12] *Arch. f. Exp. Path.*, III, 1874, cf. R. Freund l.c.

dried until they contained only 1.5 percent of moisture and then placed in air-tight bottles lost practically none of their potency in a year.

Standardizing the Drug

These variations in the efficiency of this important drug long ago showed the necessity of determining a definite standard of activity. Unfortunately, such a standardization is at the present time impossible by any known chemical means, because the chemistry of the constituent glucosides is not fully understood. For this reason various methods of physiologic testing were proposed, such as are discussed in the very important papers by Edmunds and Hale[13] and by Worth Hale[14].

Not, however, until 1898 was the application of physiologic tests advised for the production of uniform pharmaceutical preparations. In that year Houghton[15] published his method for the physiologic assay of strophanthus, basing it upon the fact that the killing power of the cardiac drugs for frogs of definite size and species, kept under proper conditions, is constant per Gram of body-weight. For digitalis, the dose of a certain specimen was determined which would cause systolic arrestment in the heart of rana pipiens in this country, while in Germany rana temporaria is usually employed. The time in which the systolic arrestment was produced varied with different methods, ranging from 24 hours (C. Bührer[16]) to 12 hours (Houghton), one hour (Fraenkel[17]), Famulener and Lyons[18], and to Focke's short-time method of from 7 to 10 minutes. The dose necessary was calculated, in each instance, for one Gram of frog-weight.

Focke proposed that a standard for the pulverized digitalis leaves should be established in this manner, and that manufacturing chemists should have to adhere to it. Specimens either above or below the standard would then be weakened or strengthened by proper admixture from other specimens, when the standardized powdered leaves would be packed in small containers, so that the danger of their deterioration after opening would be minimized. Fluid extracts and tinctures would also be standardized and treated in a similar manner.

In addition to the frog methods, the effect of digitalis preparations on the guinea-pig and on the cat (Hatcher's method) has been used for standardizing.

The merits and demerits of all these various methods are discussed by Edmunds and Hale (l. c). also by Focke[19], and are described clearly by C. C. Haskell in *The American Journal of Pharmacy* for May, 1911. We cannot here enter into their detailed discussion, for lack of time.

A priori, the short-time method of Focke appears to be the most convenient one, but owing to the decidedly slow action of the drug, it is not, perhaps, until several hours have passed from the introduction of the first dose of digitalis that the patient is under the maximum influence of that dose of the drug. This must to some extent be true for animals, even the cold-blooded, although in frog experiments the drug is injected into a lymph-sac and thus fairly rapid absorption secured. It would nevertheless seem that a considerable time would elapse before the best digitalis effect can be observable, a fact that would argue against the short-time method of Focke and in favor of the one-hour or even the 12-hour methods employed in this country.

Results of Pratt's Laboratory Tests

An examination of Table II of Dr. Pratt's paper shows that the ideal of drug standardization is as yet far from having been attained. The author found that the minimum dose of digitalis leaf per Gram of frog-weight required to produce systolic standstill of the heart of rana pipiens, in 30 minutes, is:

Caesar and Loretz.	Powdered digitalis leaf.....	0.0014 Gram
Merck.	" " "	0.0020 "
Parke, Davis & Co.	" " "	0.0035 "
Allen (English)	Digitalis leaf (from dispensary of a Boston hospital).....	0.0040 "
Squibb.	Digitalis leaf from a Boston drugstore.....	0.0040 "

Five different lots of Allen's English leaf obtained from four druggists in Boston and

[13] "Hyg. Lab. Bull.," No. 48, 1909.
[14] "Hyg. Lab. Bull.," No. 74, 1911.
[15] *Jour. A. M. A.*, xxi, 1890, p. 959.
[16] "Diss.," Basel, 1900, cf. Edmunds and Hale.
[17] *Ther. d. Gegenw.*, xliii, 1902, p. 106.
[18] "Proc. Amer. Pharm. Ass'n." L, 1902, p. 415.
[19] *Arch. d. Pharm.*, 1902.

from one hospital were tested by Pratt. Not one of these samples exerted any digitalis action when 3 milligrams were given. The preparation obtained from the hospital gave a positive result when 4 milligrams were used. Two of Allen's preparations were tested in still stronger solutions, and 5 milligrams per Gram of frog-weight were not sufficient to stop a frog's heart. Without doubt, Pratt says, these preparations were once active, but had lost their strength through age and exposure to air.

It is worthy of note that, while digitoxin is the most important and most constantly present glucoside of digitalis leaves, attempts to find a relationship between the digitoxin content and the activity of the preparations proved a failure, as appears from a study of the tables below, reproduced from Edmunds and Hale.

Ziegenbein[20] conducted such a series of comparative experiments, estimating the toxic dose upon frogs, and employing leaves obtained from various localities of Germany.

No.	Specimen	Digitoxin content Percent	Toxic dose for 100-Gram frog Gram
1	Leaves from North Harz, 1901 ..	0.33	0.03
2	Leaves from North Harz, 1901 .. (selected)	0.163	0.03
3	Leaves from South Harz, 1901...	0.14	0.04
4	Leaves from South Harz, 1901... (selected)	0.185	0.03
5	Leaves from North Harz, 1901...	0.125	0.03
7	Leaves from Thuringia.....	0.115	0.05
10	Leaves, old, 1900.....	0.226	0.06
11	Leaves, Harz (finely powdered) .	0.235	0.04–0.05
12	Leaves, Harz (finely powdered) .	0.18	0.05

Famulener and Lyons (l. c.) carried out a similar research, with the following results:

Specimen	Purified digitoxin content percent	Toxic dose for 40-Gram frog Gram
A Fluid extract of digitalis	0.196	0.026
B Fluid extract of digitalis.....	0.258	0.029
C Fluid extract of digitalis.....	0.182	0.038

Barger and Shaw[21] found that the ratio of toxicity of the tincture of digitalis to the toxicity of the digitoxin contained in the specimen varied, in the series of 9 tinctures, from 3.5 : 1 to 6.9 : 1; or, in other words, tinctures from 3.5 to 6.9 times as toxic as the digitoxin which was obtained by chemical assay. Focke[22] and Fromme carried out a similar set of comparative experiments, and concluded that the digitoxin-content and the physiologic activity as determined by experiments on the frog did not run parallel.

[20] *Arch. d. Pharm.*, 1902, ccxl. p. 454.

[21] Chem. and Physiol. Assay of Digitalis Tinctures, "Handbook of Pharmacy," 1904, p. 541; *Pharm. J. & Tr.*, 1904, lxxiii, p. 249, cf. Edmunds and Hale, l. c.

[22] *Deutsch. Aerzt. Zeit.*, 1904, VI, 292, cf. Edmunds and Hale, l. c.

Results of Some Personal Tests

In my own experiments, I found that an amount of digitalis equal to one-fiftieth of the weight of rana pipiens, injected into the inguinal lymph-sac, produced systolic arrestment in from 4 to 9 minutes, using a 5-percent solution of digitalin (Abbott), while the same amount of an infusion of digitalis leaves from the pharmacological collection of the Northwestern University Medical School required, in one frog, 17 minutes, and remained ineffective, in another frog, after 20 minutes.

An examination of several different makes of "digitalin" gave me the following results:

	Caused systolic arrestment in
Digitalin, Gehe & Co.....	11 minutes
Digitalin, Mallinckrodt	6 minutes
Digitalin, Hoffmann-La Roche	12 minutes
Digitalin, Merck.....	12 minutes

Edmunds and Hale investigated the toxic doses for small mammalians as well as for frogs, of 9 different galenical preparations of digitalis, the results of which are instructive (l. c. p. 34–40).

The variability of these preparations is shown still better in the more recent report by Worth Hale[14]. This report is of interest in many respects, giving the results of extensive tests made with many preparations of digitalis. Concerning the unreliability of digitalis, Worth Hale says that digitalis is a notoriously variable drug, its activity varying from 100 to 400 percent.

Gentlemen, I had hoped to make this paper a preliminary report of some investigations in which I have been engaged for some time. Circumstances have prevented this and I must postpone my report until all my experimental work shall be completed. The present study of only a very small portion of the digitalis literature will have served its purpose if it demonstrates the importance of employing a preparation of digitalis the activity of which is constant and known.

Some Practical Deductions

Clinical experience has shown that the full digitalis effect is obtained from reliable socalled digitalin preparations, H. A. Hare

to the contrary notwithstanding. I say "socalled digitalin preparations," because not all preparations so labeled contain only the glucoside digitalin of Schmiedeberg or the digitalinum verum of Kiliani: for some contain digitoxin and other glucosides as well.

Against the use of full-drug preparations may be argued that the presence of digitonin, if sufficiently great, antagonizes the vagus effect of the digitalin and prevents the drug from slowing the heart, as is the effect of the latter. I am well aware of the fact that digitonin is practically never present in preparations of the leaves, which alone are used in this country, but this does not vitiate my argument, especially for the contingency that an American prescription may happen to be compounded in Germany, and there made up from a preparation of the seeds. In our days of globe-trotting, prescriptions should call for absolutely standardized preparations the world over.

My experiments have been carried on chiefly with a digitalin trituration, the toxic strength of which has been determined, by careful physiological tests, to be 0.08 milligrams per Gram of frog-weight. Good digitalis leaves give values of 0.6 to 0.9 milligrams, with an average of about 0.75, and upon the basis of this value the digitalin, from which the trituration referred to is made, is approximately 10.6 times stronger.

Liquid Digitalis Preparations Deteriorate

In spite of the fact that most manufacturing chemists standardize their tinctures and fluid extracts of digitalis before putting them on the market, this does not afford a sufficient protection against deterioration, because all fluid preparations of the plant spoil very quickly. Hale has shown that tinctures of digitalis begin to deteriorate twelve or thirteen months after being made. Infusions cannot be depended upon to remain unchanged for even twenty-four hours. This has been especially emphasized in an investigation made last spring by *The New York World*, in which 300 prescriptions written by a prominent physician were filled by big and little pharmacists in all parts of Manhattan. Physiologic tests, made by the H. K. Mulford Company of Philadelphia, showed that some of the preparations had a comparative activity of little more, and even a little less, than 50 percent. In one instance the comparative activity showed only 29.4 percent. Some prescriptions of tincture of strophanthus were found to be 250 percent of the normal standard, so that the customary dose would have been decidedly dangerous for the patient. While there is little danger that an excessive activity may be blamable to a preparation of digitalis, a deficient standard is just as serious, because very often our dependence upon the drug is a matter of life and death.

The New York World created an unjust impression of dishonesty or carelessness in the druggists. The fault was rather in the unavoidable deterioration of liquid digitalis preparations.

On the other hand, it has been definitely proved that the glucosides isolated from the leaves are stable provided they are not in solution, and that in a judicious mixture they afford the full activity of the whole leaves. It is with this fact in mind that The Abbott Alkaloidal Company has been experimenting for a considerable period of time, and that firm has finally elaborated a product which contains all the active glucosides of the leaves in a permanent form. This product is known as digipoten.

We cannot afford to admit any guesswork in the matter of such potent drugs as digitalis and the other remedies of the group. It is absolutely necessary that the preparations which we use should be standardized and should remain standardized. It is impossible for the druggist to make a special test of standardization for each amount of a fluid preparation which he dispenses. If we can be assured of a supply of the therapeutically valuable, heart-toning glucosides of the leaves, either alone or combined, it is manifestly of advantage to ourselves and to our patients that we should use them, and by preference in the dry form, since thus prepared they are unchangeable, while in the form of fluids they all have a decided tendency to decompose.

Tonsillectomy or Tonsillotomy

A Plea for Conservative Surgery

By J. A. STUCKY, M. D., Lexington, Kentucky

HAVING seen, in consultation, in the past few months, a number of the after-effects of tonsillectomy, I am inclined to believe that the surgical pendulum has swung too far, and that instead of radical conservatism we have reached radical radicalism.

The difference, in the opinions of a large number of rhinolaryngologists, is due to the uncertainty of our knowledge of the function of the tonsillar glands. My own views, as expressed in the discussion of this subject at the last meeting of the American Medical Association in Chicago, have not changed.

Because of the larger number of operators doing tonsillectomy, and of the prominence of the necessity for relief from diseased adenoids and tonsils, by reason of their causing rheumatism and other serious lesions in the body, I am led to ask, with Joseph A. White: "Is the present holocaust of tonsils necessary? Is there not too great a tendency to radicalism? And is there not a happy medium between the terrible onslaught on tonsils and a conservatism of neglected operative procedures which are really necessary and safer, hence the better plan?"

Some Disturbing Sequels of the Operation

Some of the sequelæ referred to which I have seen were where the pillars of the soft palate were out of alignment, due to cicatricial contraction causing tension and interference of palate movements, thus making swallowing a discomfort. As one child fourteen years of age expressed it, "I do not swallow as good on one side as I do on the other." The anterior and posterior pillars were matted down by the adhesions causing the traction to be so great around the fossa of Rosenmueller as to cause a partial closure of the eustachian tube, with subsequently resulting tinnitus. The great traction made with the tonsillar forceps, which is necessary in some of the cases of submerged tonsils in order to pull them out to permit a dissection, causes stretching of the tensor palati and levator palati, a group of muscles which lose their tonicity, resulting in the regurgitation of fluids through the nares.

Five or ten years ago, I resorted to tonsillectomy almost exclusively, but in the last three or four years, except in selected cases, I do not dissect out the entire gland, for reasons already published in several of my discussions. I see no justification for tonsillectomy as a routine practice in this field of surgery. To sacrifice healthy tonsillar structures militates against an operator aiming to be a conservative surgeon, which is the first duty we owe our patients.

The Two-Fold Function of the Tonsils

The tonsils have efferent and afferent lymph-channels, which excrete and secrete elements that maintain a protectorate over nature. Of this fact I am firmly convinced by clinical observation; and this two-fold tonsillar function should be appreciated by the specialists much more than by the general practitioner. To prevent the introduction as well as the elimination of dangerous elements should be a consideration appealing to every student of physiology. "If we believe in the functional coordination of the glands with internal secretion, we must admit a compensatory ability and correlation-hypertrophy for functional accommodation." (Junes Glover.) If this is true, why should we remove the first barricade, or outer guard, thereby causing the deep structures of the inner guard to work at a risk of graver infection?

Diseased tonsils cause serious systemic disturbance in two ways: first, when they are so large that they produce a mechanical obstruction; second, when they are *phimosed*. By this latter term I mean submerged with adhesions to the pillars, causing a retention of the natural secretion and the formation of caseous masses, these

remaining there so long a time that they become purulent, so that a slow sepsis is the result. The *phimosed* adherent tonsils do far more injury than the large protruding ones; for, if the latter are present, the very act of deglutition squeezes the retained secretion out of the crypts, thus facilitating drainage.

Tonsillitis and Systemic Disturbances

Tonsillitis usually is a local manifestation of a constitutional, or systemic, disturbance. I do not believe that any cases of acute follicular tonsillitis are relieved without the use of systemic medication, and why should the tonsil that is a little enlarged and has a few follicles obstructed with cheesy masses in the crypts be condemned to enucleation? Does the general surgeon excise lymph-nodes in adenitis? No—on the contrary, he drains them. Does the gastrointestinal specialist snip off any portion from the buccal lining in aphthous stomatitis? Does the dermatologist cut away any of the dermoid layer in the eruptive stage when the eruption is due to constitutional causes? These are somewhat parallel pictures to the tonsillar function.

The tonsil ranks in importance with the appendix. Both appear to be insignificant organs, but to these two more attention is drawn than to all the other organs put together. The function of both is as yet obscure, and it is still the belief of many that we can get along without them just as well as with them.

It is disputed by Mosher (and others) that the tonsil is a pathologic structure; on the contrary, he claims it is as much a part of the human organism as is the thymus or the thyroid gland, whatever its function may be. It is composed of tonsillar tissue and adenoid cells, forming follicles and crypts which favor absorption and secretion. These layers of tissue are surrounded by a dense capsule of connective tissue, over which prolongations extend into the tonsil, dividing it into pockets or crypts, which lie between the anterior and posterior pillars of the palate, these being united by mucous-membrane attachments which are often mistaken for pathologic adhesions—these attachments, it is true, often being increased by repeated inflammatory attacks. These crypts are lined with stratified epithelium which are thicker than the surface membrane.

It Acts as a Barrier to Entrance of Germs

I am in accord with the claim made that the gland acts as a barrier to the entrance of microorganisms into the body, that it assists in leukocytosis, and produces phagocytes. In other words, "the healthy tonsil is a protective organ against infection, and though the crypts may be swarming with bacteria, these stimulate its epithelial cells to throw out a ferment which in turn destroys the invading microorganisms—a process known as bacteriolysis." (Wright.) Often these cells lose their tone by pathologic changes, local or constitutional, the process of bacteriolysis is arrested and an infection takes place.

I believe, also, that the function of the tonsil is to act as an eliminating organ of the toxins in the system. And being the point of least resistance, the infection is often first manifested there. That the tonsil in a diseased condition is a menace to the organism and is a focus of infection, has been demonstrated by an accumulated mass of evidence by observers all over the world.

There are two routes of infection to the general system through the tonsils, one by way of the blood-vessels, the other by way of the lymphatics. Bacteria pass along the lymph-channels but do not penetrate the vessel-walls, while the toxins do so easily. Hence, toxic infection of the system through the blood-vessels is much more common than the slower process of the lymphatic infection, or bacteremia. An example of this is the rapid development of systemic symptoms of acute tonsillitis, while glandular enlargement at the angle of the jaw or cervical glands is rarely ever present at the beginning of an attack, and often not at all.

Tonsillotomy Usually Sufficient

After many clinical tests and close observations on several hundred cases in the past three or four years, I am convinced that, *if the upper one-third or one-half of the tonsil is removed, the supratonsillar*

fossa made free, adhesions to the pillars prevented, this is all that is necessary. The lower one-third or one-half of the tonsil is left to perform its function (if it has any), and to preserve the acoustic properties of the pharynx, and whatever other function intended by nature. This lower portion being devoid of follicles and crypts, retains no secretions, and I have never known it to be primarily infected or to become diseased after the upper portion of the tonsil had been removed. Adenoid tissue should be thoroughly removed whenever it exists, care being taken not to use too much force with the curette or forceps.

Conclusion

When tonsillectomy is necessary, as it sometimes is, it must be made clear to the patient, or to the parents or friends, that it ranks with the major surgical operations and should be done in a hospital, with the same careful execution that any other major surgical operation is performed.

Since the presence of diseased tonsils and adenoids in children is one of the greatest drawbacks to mental and physical development and a serious menace to health, and since, moreover, so many serious complications and sequelæ are being reported as the result of the radical operation of tonsillectomy, this word of caution does not seem out of place, because of the danger of bringing into disrepute one of the most important operations in surgery. As I stated at the meeting of the Mississippi Valley Association at Nashville, in November, 1903, in the South this operation is one of the most unappreciated, underestimated, and underpaid of all surgical procedures. And this unfortunate condition of things is, without doubt, largely due to the erroneous teachings and practices of a former period.

Hypertrophy of the Prostate Gland

How to Recognize It and How to Treat It

By ELMER E. FISHER, M. D., Salem, Oregon

IT is not with a view to presenting to you anything new or original concering my subject, prostatic hypertrophy, but for the sake of refreshing our minds, that I wish to call your attention to it. The fact that "time waits for no man," and that age is the principal factor in the production of this condition, makes it important for us to cultivate the acquaintance of systematic methods of managing these prostatic cases and also a careful method of examining them.

Etiology.—Age is the factor to reckon with—the changes of senility, arteriosclerotic changes. Men of amorous natures are said to suffer most frequently; gonorrhea may predispose toward the hypertrophy; also long-continued congestion of the sexual organs from ungratified sexual desire. The prostate gland being the sexual heart, it would naturally be predisposed to hypertrophic changes. Usually this body takes on this hypertrophic change after the age of forty-five, i. e., after the masculine menopause. There is, however, a relative infrequency after the seventy-fifth year.

Frequency.—Thompson claims that 34 percent of all men have hypertrophied prostates; Johnson says 79 percent. So, at a conservative estimate, 50 percent of men have enlarged prostates, and all writers agree that 15 to 16 percent of men suffer from the condition. Thus we must conclude that every practitioner will have more or less of these patients to deal with, and should, therefore, be prepared to give them safe advice.

Pathology and Symptomatology

Pathogenesis. The neoplastic theory is the one especially appealing to the pathologist now.

Morbid Anatomy. There are three general types of hypertrophied prostates: (1) a diffuse soft (adenomatous) type;

(2) a diffuse hard (fibrous) type; (3) a type characterized by the development of encapsulated tumors within some portion of the gland.

Cardinal Symptoms

These are: Pollakiuria (nocturnal), dysuria, dribbling, partial or complete retention.

Pollakiuria (*Nocturnal*). Frequency of urination in men past the age of fifty years is almost pathognomonic of hypertrophied prostates. This is due to congestion of the bladder and prostate. The nocturnal polyuria is not related to the question of residuum; the frequency is increased as the night wanes.

Dysuria. Difficulty in urination: (1) Stream is slow to start, sometimes several minutes before it starts. (2) The flow lacks force and body. (3) The greater the effort, the less the result. (4) At the end of the act, there is no piston stroke finish. (5) The amount of pain depends upon the degree of congestion and inflammation present.

Dribbling. The causes are: (1) Overflow, incontinence of retention, the bladder does not burst, but force from behind carries some urine through the canal. (2) Irritability of the neck of the bladder, from a low degree of inflammation and sensitive nerves. (3) True incontinence. This is rare. Occasionally a patient is encountered whose persistent dribbling suggests overflow, but his urethra readily admits a catheter and his bladder is found empty. This is true incontinence. The course so far has been due to congestion. We next find in addition another condition, viz., partial retention.

By partial retention is meant that the patient is unable to empty completely his bladder naturally; but by the use of a catheter, after he has expelled from his bladder all the urine he can, we are enabled to withdraw a certain quantity of urine—from 15 to 90 Cc. usually. Now the next step in the progress is that of complete retention.

Complete retention may come on suddenly from getting chilled or from a debauch, and if this condition is not relieved by mechanical means, we generally will find, in the course of time, that some urine will trickle out. This is the overflow, or the incontinence of retention.

The complications which may arise are: prostatitis, spermatocystitis, epididymitis, cystitis, pyelonephritis, calculus.

Diagnosis of Prostate Hypertrophy

The history given by the patient is of great importance, as from him we get our cardinal symptoms. Next comes the examination of the prostate, which I have been able to accomplish best in this manner:

Have the patient lie on his right side on the chair or table, and standing in front of him, opposite the buttocks, I insert the anointed index-finger of my right hand and palpate the gland, taking note of (1) the size, (2) the shape, (3) consistency, (4) amount of pain produced by pressure.

The next step in diagnosis should consist in preparing a soft-rubber catheter (about No. 15, F), then have the patient urinate into a glass, expelling all he can, and now insert the catheter. If there is any residual urine, the amount should be ascertained; but before the catheter is withdrawn, the bladder should be irrigated with a 1 : 2000 silver-nitrate solution, to prevent infection and urethral chill. Then a chemical and microscopical examination of the urine should be made, to guide us in our treatment with regard to a chance for relief from the dysuria and also whether the patient would stand an operation of radical nature, were it otherwise advisable.

The Management of the Disease

Having ascertained that a patient has prostatic hypertrophy, then the very serious question of management comes up for solution; and this will depend upon several factors, viz.: The age, the physical state of health, the pollakiuria, the dysuria, the degree of retention, and the occupation and disposition of the patient. Generally, however, we may divide the management into palliative and radical.

We all recognize the fact that the radical operation has a pretty high mortality, and this depends to a great extent upon the physical condition of the patient when operated upon. I have, therefore, a plan, which I gave to my medical class last year,

and one which from conclusions drawn from all the literature at my command appeals to me as being rational.

For instance, a patient comes to us and we make a diagnosis of hypertrophied prostate. The stage of his condition is that of congestion without any retention of urine. We should make a complete physical examination, advise him to avoid sexual excesses or appetite indulgences, and to protect himself from sudden chilliness, avoid constipation assiduously, thus lessening the amount of contiguous congestion of the prostate. If troubled with constipation, I like the pil. cascarin comp. formula of Hinkle, while for the pollakiuria and dysuria, the following treatment is best: If the urine is highly acid, give a mixture consisting of tincture belladonna, fluid extract ergot, potassium citrate, elixir saw palmetto and santal compound. But, if the urine is neutral or alkaline, use urotropin in place of the potassium citrate, and let the patient drink enough water to keep the specific gravity below 1015.

In the stage of partial retention, the foregoing management should be instituted, and in addition the patient should come to the office twice every week and have a No. 18 to No. 22 F sterile soft-rubber catheter inserted and the bladder irrigated with a 1 : 2000 silver-nitrate solution, that is, if there is not more than 75 Cc. of urine retained. If there is more—up to 125 or 150 Cc.—the catheter should be inserted every day, besides a silver-nitrate (1 : 2000) irrigation, until the quantity retained is lessened.

Then comes the stage of complete retention. In this condition, the treatment again is either palliative or radical—curative.

The palliative treatment consists in the use of a sterile soft-rubber catheter, four or more times a day, with one irrigation of the bladder with a 1 : 2000 silver-nitrate solution; and all the foregoing hygienic and medicinal treatment. If the bladder becomes infected, let us refrain from doing a prostatectomy, because doing so serious an operation under such circumstances is the cause of the high mortality. Strive at once to check the infection by doing a cystotomy, suprapubically. I prefer this region for opening into the bladder, for it can be done painlessly under local anesthesia. However, if the patient appears to be fearful, first, give him a hyoscine-morphine-cactin tablet, an hour before the operation. Open the bladder through the space of Retzius and insert a soft-rubber tube, through which the bladder may be irrigated twice daily with a 1 : 2000 silver-nitrate solution.

The patient now should be given a mixture of urotropin, fl. ext. triticum, elixir saw palmetto and santal compound. He should have his alimentary tract carefully managed after all bladder symptoms have cleared up. Then, if he is maintaining his weight and the kidneys are excreting fairly well, the removing of the prostate should be considered, but not till then.

When Shall We Operate?

When shall we operate? This question must be answered, Keyes says, not till palliative measures have failed. Ballinger thinks, rather than turn a man out with a catheter, advise an operation. In my small experience, I have operated only when I felt that the patient would lose out if left to himself.

I believe we should thoroughly prepare the urinary tract before operation, no matter under what circumstances we get the case. As these cases come to the surgeon, they present a variety of propositions to be considered. I believe that, as a class, those cases are the most uncertain and dangerous with which the surgeon has to deal. Deceptive in their apparent strength of physique, they stand among their fellows like giants of the forest with hollow trunks and rotten cores, to crash at the first blast of a great storm. Why? Because the great eliminative urinary system is already practically destroyed or hopelessly impaired. Now add to this the slightest anesthesia, the least operative shock or disturbance of the urinary tract, with changes, intravesical or intravascular, and an acute nephritis ensues, often with entire urinary suppression; and in spite of our best efforts, the patient dies within the first forty-eight hours.

I prefer the suprapubic route for the following reasons: (1) It is a simpler and safer approach to the bladder. (2) It can be done more quickly—a great desideratum in these cases. (3) The interior of the bladder can be better exposed for inspection. (4) Calculi are easily discovered and removed, which complication may be overlooked by the perineal route. (5) The midlobe is more easily reached and cared for. (6) It gives better control of hemorrhage. (7) It lends itself better to the preliminary drainage operation, when such is indicated, and allows of the subsequent operation through the same opening. (8) In postoperative care, it is much easier to flush and distend the bladder and drainage tube can be removed and inserted at will. (9) The incision closes more readily and promptly, and so there is less danger of fistula. (10) Danger of later incontinence is less.

An Illustrative Case

Let me cite a case. Mr. W. R., age 62, retired farmer, previously a clerk. Was called July 28 in evening to see him for difficult respiration. Found patient lying on sofa suffering from dyspnea. Rather frail individual. Gave history of having been losing in health since last February. As it seemed most important to find out the cause of the dyspnea, I began a physical examination. I found him anasarcous from his toes to his breasts. He said this condition had been coming on since in February. Listening to his heart, I found a loud mitral regurgitant systolic murmur, and, from the weakened condition of the peripheral pulse, I thought of dilatation. Palpating the abdomen, I could outline a tumor in the hypogastric region extending to the umbilicus. On account of the extreme ascitic condition, I could make out nothing further.

Asked about his being able to make urine, the man said he made a few drops every ten minutes. I immediately thought of incontinence of retention and introduced a metallic catheter, No. 15, F, with some difficulty, and withdrew five pints of urine. This done, I examined the prostate and found it considerably hypertrophied. I could hardly believe that this had caused the dropsy, so inquired concerning the use of intoxicants which might have led to cirrhosis of the liver. He had an alcoholic history and had taken the Keeley cure twelve years ago.

I left only a cathartic and visited him the next morning, when I withdrew two quarts of urine, and irrigated the bladder with 1 : 2000 silver-nitrate solution. At noon I catheterized three pints from him; at night the same amount. I kept up the catheterizing for six days, at the end of which time all anasarca had disappeared and the cardiac leakage was scarcely audible. I could find nothing physically wrong but the prostate. I tried to have him submit to some form of bladder drainage, but he refused, and said he believed he "could go it alone" then.

On October 11, I was called again and found him suffering more severely from dyspnea than before. I began the catheterizing and 1:2000 silver-nitrate irrigation, three times daily, and got a promise that, if I got the swelling out of him again, he would submit to the operative treatment. Prof. Boyer examined him and knows of the heart lesions and prostatic enlargement; no doubt there also was a hydronephrosis. Dr. Boyer also examined the urine. On October 24, the man went to the Salem Hospital and was prepared for a suprapubic prostatectomy. From his entrance into the hospital I ordered strychnine, gr. 1-64; glonoin, gr. 1-100; digitalin, gr. 1-64, hypodermically every four hours.

At 7:30 a. m., on October 25, there was injected one hyoscine-morphine-cactin tablet, and at 8:30 the patient was placed on the table and another tablet of hyoscine, morphine, cactin injected. At 9 o'clock the preparation of the field of operation was completed, and Doctors Ellis and Soule watched the state of anesthesia, prepared to give chloroform if needed. Dr. Massey injected two hypodermic doses of a local anesthetic into the median line just above the pubis, while I introduced one and one-half pints of boric-acid solution into the bladder. We then began the operation and completed it, removing both lobes of the prostate gland through the

suprapubic incision, without the use of a single drop of chloroform.

The man rallied splendidly from the operation. On account of the atony of the bladder, I retained the tube through the space of Retzius. Two weeks after this, the tube was removed and the man left the hospital on the nineteenth day. At the present time, four weeks from the operation, he has good drainage through the penis and the fistula into the bladder is nearly healed; he has practically complete control of his urine, having already been able to hold his urine all night.

The salient features in this case were the extreme edema which existed from toes to thorax, which entirely disappeared after removal of the obstruction to the outflow of urine, and the regurgitant murmur, which has also disappeared.

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[We want to make just one suggestion: So many reports have come to us of remarkable improvement following the use of chromium sulphate, even in patients who already had the catheter habit well established, that we think a careful trial of this drug should be made in practically every instance before referring these cases to the surgeon for operative interference. The chromium sulphate will do no harm and it may be of the greatest benefit.—Ed.]

Urine Analyses Which Have Solved Diagnostic Puzzles

From the Records of My Private Laboratory

By B. G. R. WILLIAMS, M. D., Paris, Illinois

EDITORIAL NOTE.—This is the second paper in Dr. Williams' series on the "Surprises, Delights and Curiosities Encountered in Medical Laboratory Work." If you have not read the first installment, which appeared in our February number, we advise you to secure a copy. You will want the entire series.

II

So great is the tendency on the part of some workers to emphasize the value of the laboratory diagnosis, at the expense of all other procedures, that I have considered it advisable to preface my remarks with an instance which should serve as a caution. This illustration is but one of the many which have been cited to the disadvantage of the medical workshop. In this case, the worker, rather than the method, was at fault.

The patient complained of frequent micturition and vesical pain. The urine showed every evidence of a severe cystitis, and treatment for this was instituted. There was no response and, so, after three months, the physician was discharged. The next doctor also examined the patient's urine and agreed with the predecessor's diagnosis. But he was not satisfied with certain theories concerning the etiology advanced by the first physician. A vesical calculus was found and removed by him.

In this case, while the fault was with the interpretation rather than the actual examination, the fact remains that the laboratory conclusion is not immune from error. This does not prove, on the other hand, that in many cases, indeed, the microscope and test tube can not fix the final decision.

In illustration of this, I shall now review my records.

Rigid Tests May Discover Deception

A chronic deadbeat and scoundrel suddenly became ill, and a physician who had more knowledge of horses than of diagnostics was called. After a few minutes of examination and "jollying," the case was pronounced one of "nervous breakdown," and for twelve months the fellow remained bedfast. The physician called at frequent intervals, leaving large amounts of medicine

with directions for taking, and regularly submitted his bills to the company which was paying the sick-benefits. But this organization became suspicious and sent an agent to investigate the case. The latter arrived at the supposedly sick man's farm, pretending to be selling books, and found the "patient" seated in a chair reading. Delaying his departure until the physician arrived, he observed a beginning uneasiness on the part of the malingerer. At last feigning acute illness, he reached the bed just as the physician entered. Explanations were demanded, and several bottles of medicine not yet touched were found under the bed. Later the agent showed the physician several dozen more bottles of medicine in the cellar. This story leaked out eventually and it did not exactly augment the reputation of that doctor.

Contrast with this, if you please, another case, in which the doctor suspected deception and prescribed iodides. Returning in a short time, he demanded that a sample of the patient's urine be collected in his presence. A little starch solution and some chlorine water failed to give a blue color, showing that his medicine had not been taken. A full confession followed the direct accusation, and the physician retired from the case. This story also reached the ears of the gossips, greatly to the benefit of the reputation of this doctor.

Apparently following a course of mercury, severe gastric crises suddenly developed in a case of lues. But these continued after all medication had been withdrawn. Fearing renal complications, the urine was submitted to the laboratory, but nothing of this nature was noted. However, in my routine examination, the presence of bilirubin was discovered. Therapeutic measures were immediately directed to the right hypochondriac region of the abdomen and the gastric crises disappeared. This patient has never forgotten the aid given her by scientific medicine and would be converted with difficulty to the methods of the "paths," healers, and other faddists.

Three months ago I received a letter from a physician reading as follows: "I am sending you a sample of urine from a patient supposed to have nephritis. Albumin is present, but the symptoms are confusing. What conclusions do you draw from an examination?" The answer returned ran like this: "In the first place, this is not a nephritis, but a severe case of autotoxemia. The degree of acidity is several times that of a normal urine. The urea is diminished in amount and indican is present in large quantities. Such albumin as is present does not alter these conclusions." I was informed later that a systematic treatment of the constipation, combined with alkalis, put the patient on her feet, although two physicians had made a very discouraging prognosis.

Wonderful, is it? No, just common sense. If a person is sick enough to be bedfast, his urine usually gives us *some* light upon the condition, even though it does not offer a final diagnosis.

But another man was affected with "lumbago." Iodides, plasters, sinapisms, electricity, Christian science, all failed to relieve him. The acidity of the urine was tremendous. Alkaline diuretics and anti-constipation pills were then administered. Make a guess at the result. Here were no ultra scientific experiments, but practical knowledge which could be gained only by means of the chemical and microscopical tests.

Useless Nephrolithotomies, and How Some Were Obviated

Several years ago, a man was seized with a severe "nephralgia." The urine showed many oxalate crystals and was highly acid. No reliable x-ray laboratory was at hand, but so certain were the surgeons that a renal stone was present, that an operation was attempted. In vain I pointed out certain urinary findings in probable explanation of the pain. The operation was carried out and no calculus was found. Without going deeply into the subject, I wish to state that I have examined at least three similar urines since that date, all showing the oxalate crystals and two of them blood. By reducing the acidity of the urine and excluding all foods containing oxalic acid or substances so convertible, these patients have been relieved or cured. In a single case which did not so respond, the x-ray

showed the presence of the stone. In addition to the oxalates and blood, however, there was pus.

Incipient Nephritis May Be Detected and Cured

What concerning "congestion of the kidney" as an incipient stage of the true and incurable Bright's disease? I firmly believe that this condition has and may easily be diagnosticated. In the same way an active hyperemia of the acute fevers and a passive blood stasis of valvular lesions makes itself known by the appearance, in the urine, of serum albumin. In a person past life's zenith or one who has lived in alcoholic and sexual atmospheres, a highly concentrated urine with no change in urea—but invariably showing presence of serum albumin, and in which certain casts, especially the granular and epithelial varieties, are persistently absent—does not yet contain the products of a true inflammation. In some of these urines hyaline casts have been noted. Such cases, needless to say, are curable and often have responded to proper treatment; that is, where the strain is transferred or shared by the cutaneous or intestinal emunctories. I have observed several of these cases, but hesitate to burden the reader with details. Be sure, however, that true Bright's disease is actually present and established before dooming your patient.

Many delights and surprises met in uranalyses I have not touched. Doctor, you have undoubtedly seen many of these instances. Keeping in mind that "conclusions drawn from the urine ALONE are as brittle as the urinal containing it," it is well to remember also that (in addition to acute and chronic diseases which may already be established) "every man is as old as his urine," and an occasional examination now and then in the man past life's zenith and displaying no pathologic symptoms may show up some enemy to good health. So that, as a prophylactic measure, uranalysis holds an important post.

Two curiosities and yet therapeutic delights now force themselves upon my attention before taking up diseases of the blood.

The first patient, a woman, had baffled the several physicians. At frequent intervals, scarcely periodical, she took to her bed, complaining bitterly of exhaustion, mental and physical inability, and pelvic and abdominal pain. A psychosis had been suspected. Two examinations of the urine gave no aid to the medical council. A third sample was taken immediately following the beginning of the attack. We were astonished to find it a very concentrated suspension of cellular elements. Menstruation was not due for a week. Further, these cells were of the pavement variety. A catheter-collected sample showed nothing. Finally it was suggested that the patient be watched closely. Twice she attempted to elude the nurse, but unsuccessfully. The attacks ceased for the time and the physicians were dismissed. After only a few hours another attack occurred. Suspicions became conclusions in the minds of the physicians, but under the circumstances nothing could be proven. A psychosis eventually developed, and with it sufficient proof that masturbation had been an accompaniment if not the chief cause of the strange attacks.

Uranalysis May Corroborate Surmise

An examination of the urine may not give the first clew to the nature of the disorder, still it may prove the correctness of the suspicion. Here is an actual instance.

The patient, though not bedfast, complained of almost every imaginable symptom, possible or otherwise, and soon became a "medical pest." That gastric crises were present at times was undoubted, and a secondary, toxic, anemia was diagnosticated by blood examinations. At times the patient was seized with sneezing attacks which often grew alarming. The man's family noted that his eyes did not "look natural." The physician then observed that this was due to a marked miosis.

After a complete examination of his nervous system, he inquired about any medicine which the patient might be taking. Finally he obtained a sample of the urine for examination with regard to the possible presence of drugs, and we were

rewarded by what appeared to be a positive test for morphine sulphate. We then obtained a specimen of the feces, recalling the manner in which the drug named is excreted. A positive formalin-sulphuric test was obtained, and the patient was accused accordingly. He denied the fact that he was taking morphine and laughed at us. We continued our tests and received positive reactions when working with the feces and saliva. At last this patient was subjected to the "third degree" and held under constant observation. He grew gradually more restless and, finally breaking down, confessed. His "craving" was obliterated before it became hopelessly fixed.

The next communication will treat of "Secrets Hidden in the Walls of Blood-Vessels; Revealed by the Microscope."

Referred Patients

And the Business Relations Arising in Connection With Them

By ARTHUR BOWLES, M. D., Ellsworth, Kansas

III—"Fee-Splitters" and "Fee-Hogs"

IN discussing this, the really essential point of this paper, I think that I may assume as premises, first, that the patient should pay for the service, and, second, that the surgeon and the physician should be liberally remunerated.

All the trouble arising over referred cases is over the question of the physician's participation in the fee, and in the heat of the battle we hear the epithets of "fee-splitters" and "fee-hogs." The fee-splitter claims that a lump sum should be charged, in which both physician and surgeon participate. On the other hand, the "fee-hog"—so called—contends that the operating surgeon is entitled to the full amount collected for the operative work, and that the physician calling him must make his own personal charge against the patient.

Of course, if the two have agreed beforehand on a specific division of the total fee and that each collect his share, there can be no objection to it. However, in the vast majority of instances this course is impracticable for several reasons, and these may briefly be stated as follows:

The patient will pay the stranger called from a distance more willingly and promptly than he will his local physician. He will pay one large lump sum cheerfully, where he will protest vigorously against the payment of two smaller ones. He is impressed by the brilliant surgical work, which is something he can see, and when he pays, he feels he is doing so for value received.

On the other hand, the work done by his regular physician is not apparent to the patient's uneducated mind. We of the profession know of the long night hours the puzzled doctor spends in digging into one work after the other hunting for a clue that shall give him a line on his obscure case; we know of the worry and responsibility he feels in deciding in favor of operation, and of the diplomacy and persuasion he has to employ in bringing the patient and the relatives to see the facts through his eyes; we know of the risk to which he subjects his professional reputation, in that, when the case turns out satisfactorily, the surgeon gets the glory, but when not, he, himself, often gets more than his share of the blame, besides resulting loss of patronage. I repeat, we all know this, while the patient does not and can not know it. The foregoing claims being based on facts, no general practitioner will dispute them.

Then, knowing these facts, can we say to the physician, "Go and collect your own bill, and see that it is kept separate from the surgical fee"? This is what the "fee-hog" tells us. However, I am firmly convinced that the bulk of the profession think otherwise and that the opinion of the majority will eventually come to be recognized as correct and ethical.

In support of this opinion I wish to submit some facts.

A Practical Illustration

Let me relate a case that illustrates some of the points I am trying to emphasize. Some years ago, a lady came into my office from a neighboring town and told me that she had a small lump in one of her breasts. Her age was forty years. The lump was the size of a large walnut, hard, irregular in outline, slightly tender, and had lately occasioned some pain. Nothing could be felt in the axilla. I advised operation, but was laughed at. She paid me two dollars for my time and went away. She evidently gave some thought to the matter, however, for a week later I had a letter from her. I answered it. Then came one from her husband. This resulted in quite a correspondence, in the course of which I explained, as well as I could, the dangers of a malignant condition, repeating the advice to submit to an operation. About six months later I heard from them again. They had gone to a neighboring city and had the breast removed. The pathological diagnosis was carcinoma. So far as I know, she has had no recurrence.

I ask, was I adequately paid for the service I had rendered this woman, by the paltry two dollars she gave me at her single visit to me? Yet the people would have protested most vigorously had I demanded an additional fifty dollars for professional advice. I believe that my advice to her was worth that.

Such instances come to notice daily. I leave it to my readers to judge whether the conditions that permit such happenings are fair and right. The fee-hog would have us believe that they are. He claims that the physician's services terminate when the surgeon takes hold of the case, that he is entitled to remuneration up to that point, and that his attendance upon the case following that is unnecessary, and entitles him to no share in the surgical fee, and that, if he thinks he is so entitled, he must make a separate charge.

Unfortunately, the fee-hog has pretty well engrafted his notion into the minds of the general public, and generally they object strenuously to paying the medical man adequately for his services preceding and during the operation, if his bill is presented as a separate charge, while willingly paying a surgical fee big enough to include the former and the amount actually due to the surgeon.

Another case to illustrate this point. In the days before I was doing much surgical work, I took a woman afflicted with uterine fibroids to a surgeon—by the way, the same man of whom I spoke before. I remained with her and assisted in the operation, which was a long and difficult one. It was successful, and the woman made a perfect recovery. The surgeon said to me, "Doctor, what charge shall I make for you in this case?" I knew the people well, and they had been my patients for some time. I told him that I would make my charges separate from his operative fee. I did so. As I remember, the amount I asked for my trip to the city and participation in the operation was thirty-five dollars.

The surgeon's bill was paid within a a month. Mine went for a year and a half, in spite of repeated reminders. It was finally paid under compulsion, grudgingly, and I lost the family. The girl's father protested: "We didn't ask you to go with her; the other doctor could have got along without your assistance, he has his regular assistant. I don't see why we owe you anything." Appreciation? Sure. Yet it happens every day. Poor, suspicious, faulty human nature. The patient thinks he is being "worked" and is paying for something he didn't get.

The Fee-Hog's Untenable Suggestion

The fee-hog, unable to deny that this state of affairs exists, says to us: "Make a higher original charge—enough to recompense yourself for the entire case."

What would this latter course mean? Examine it for a moment and see where it leads. The physician, up to the moment of referring the case, has been making his visits and examinations, and putting the charges in his day-book, in his routine way. The charges he has made have been the same as he always makes. Perhaps in the beginning it was by no means

an established fact that this was a surgical case. When it comes to operation and he decides that he is entitled to a bigger return than he receives from the ordinary medical case, is he to turn back the pages of his day-book and carefully pad up his original charges until the requisite amount be obtained? Is he to divide his fee surreptitiously and tack on a little here and a little there, hoping that the patient will not kick when his bill is presented?

Yet this is just what the course advocated by some of the purists amounts to. This may not transgress medical ethics, but it is a transgression of business ethics and a decided departure from the laws of common, everyday honesty and fair dealing. If his preoperative visit was worth two dollars, the fact that the patient finally came to the operating table does not raise its value to five dollars, and to go back secretly and make it seem that such was the original charge is not only nonethical and degrading, but downright dishonest. Yes, far more so than for the physician to make a charge for his attendance at the operation and have the surgeon include the same with his own fee.

Some of the Reasons Against Fee Division

Now let us examine the reasons generally advanced in support of the contention that the division of fees is wrong and contrary to ethics.

The first evidence generally adduced is found in section 4 of article 6 of the "Principles of Medical Ethics," as published by The American Medical Association, and it reads as follows:

"It is derogatory to professional character for physicians to pay or offer to pay commissions to any person whatsoever who may recommend to them patients requiring general or special treatment or surgical operations. It is equally derogatory to professional character for physicians to solicit or to receive such commissions."

The code is all right, but the application of it by the fee-hog, in defense of his methods, is not. To say that the division of the fee is equivalent to the payment of a commission is untrue and far-fetched. The purpose of the code, in this connection, is to condemn the payment of fees by professional men to laymen, for cases that the latter may have "steered"; and it does not at all refer to the charge made by a physician for services in connection with a surgical case, even though the charge may have been collected by the surgeon and later turned over to him. As I do not happen to have been present when the code was drawn up, I have only my own common sense to go upon in making this assertion, but I feel sure that a little reflection will convince the average professional reader that it is so.

Another reason advanced against the divided fee is that, being done without the patient's knowledge, it is unjust to him. Is this true?

The patient has had the services. If they have been satisfactory and the price he pays for them is not exorbitant and not beyond his means, I absolutely fail to see how he is concerned in the matter of its disposal after it has left his hands. It should be a matter of indifference to him—and generally it is in fact—how his two medical aids settle their business relations between themselves.

The self-appointed wardens of professional ethics have alarmed themselves needlessly over this. The patient would not care if the surgeon were to turn the whole amount over to the physician, or *vice versa*, and if the two of them were to close their eyes, turn around three times, and throw the whole sum into the river, he would probably be amused or might even regard them as being a trifle "nutty" and wonder how he had ever entrusted himself into their hands, but I doubt whether he would or could feel that he himself had been injured by their act.

If, in a place of business, we buy a certain article and pay for it; and if the merchant have a silent partner who receives part of our money, are we thereby wronged or offended because we did not know of him? Of course not. And this is an extreme illustration, inasmuch as the physician is by no means a silent partner of the surgeon when his patient is brought to the operating table, even though he

does not assist actively in the technical work.

Another illustration—and from professional life. A medical consultation takes place. We all know just about what medical consultations generally amount to. The noted consultant has come in, talked pleasantly for a few minutes, perhaps poked the baby once or twice in the ribs, just to make good his standing with the delighted family, and he and the local doctor leave the house. The consultant speaks up: "Well, doctor, what is your charge? I will include it in my bill and send you the amount as soon as it is paid." Dr. General Practitioner, has this ever occurred in your experience? Of course it has. Was it fee splitting? No.

Now reverse the case. Says the surgeon: "Doctor, I am going to charge our patient one hundred dollars. Let me know how much your charges will be and I will include them both in the same bill." What now becomes of our arrangement? Does it at once "transmogrify" into the split fee, and thereby work untold harm upon professional character and ethics? Certainly not.

Not a single business or professional analogy can be cited upon which to base the notion that the patient must know how much of his money goes to the surgeon and how much to his physician. And there is no ethical difference whether the fee be divided before or after collection.

This, then, is the practice so vigorously condemned as fee splitting, and which is supposed to be responsible for much damage done to professional character and dignity and to have impaired professional morals. Bosh! I tell you, it is nothing but good business sense and business methods applied to the business side of the practice of medicine; and I would that there were more of the kind.

We have heard a great deal of the desirability of applying business methods to the practice of medicine in its other departments. The comparative poverty of physicians, as a class, has been attributed to the fact that they are poor business men. The doctor is told that he is a poor collector, that he should have a business education, should apply business tactics to his daily work, and always remember that medicine has a business side. But let him try to put this into practice, let him try to get a share of the fee that surgical cases bring in, and up goes a howl about "grafter," "briber," "fee-splitter." Let the surgeon with a sense of business fairness try to see that his medical colleague is reimbursed for his work, and the same thing occurs.

Still another claim made against the divided fee is, that it will encourage unnecessary surgery. From what I have been able to observe, I should come to just the opposite conclusion, for I have seen far more unnecessary surgery in some of our surgical clinics, where I know that the physician sending in the case was not getting a penny out of it—and I am not referring to pauper patients, either. On the other hand, I have seen the most sound and thoughtful surgical judgment, and truest conservatism, and most marked personal interest shown in the case among those surgeons who associated the general practitioner with themselves in their treatment of the cases he brought to them for operation, and afterward saw to it personally that he was not neglected when a settlement was made.

It was also maintained that fee splitting encourages work by incompetent men. Here, also, I can draw deductions from my own observations, and affirm that this claim also is not in accordance with the facts. The division of the fee is a question entirely apart from that of a man's competence or incompetence and does not affect it in the least degree. We all know of perfectly able and competent surgeons who make a practice of seeing the general practitioner remunerated for his connection with any cases he may bring to them, and, conversely, of many incompetent and bunglesome operators who boast that they never divide a fee.

In general, I think that the most progressive men will be found in the ranks of the first class, though, as I said, that the two considerations are entirely independent of each other, and whether or not a given surgeon divides his fees does not in

the slightest affect his ability. The two most widely known surgeons in our state, men of undoubted skill and large experience, see fit to divide their fees with the internist. With them it cannot be a question of commission paying, for they would be able to get all the work they could do without such artifices. Whether they make their course public or not, I have no idea, nor do I care.

(*To be concluded*)

[We reserve comment upon Dr. Bowles paper. When it is completed we shall submit some words of criticism.—ED.]

The Practical Management of Cases

Gleaned From Everyday Experience

By G. B. DORRELL, M. D., Springfield, Missouri

TO the beginner in medicine its practice is bewildering. The multiplicity of diseases, symptoms, and remedies is calculated to confuse him. By degrees he learns that certain maladies are very common, others present themselves occasionally, and some are simply curiosities that are not likely to appear once in a lifetime of a busy practician. So also with remedies. One learns in time that, though diseases are many and no two cases present the same features, yet there are certain cardinal principles that underlie the whole practice; and if these are properly attended to, the rest is rendered easy, as a general rule. When this has been learned, the doctor will have established a routine which he follows, and up to a given point thereafter he acquires such proficiency that his practice is automatic; and skill really means automatism.

The first fundamental principle of practice relates to what the ancients aptly termed the *primæ viæ*, the alimentary canal. There is not a disease on the list, from abscess to zoster, that is not the worse for attending constipation and fecal contamination of the blood. The restoration of diseased tissues and organs to health is always interfered with, if the blood supplied for nutrition is poisoned by sewage—far more so than if the drinking water and food are similarly poisoned. Dr. W. C. Abbott has received much credit for his energetic advocacy of the "clean-out, clean-up and keep-clean" principle, but there is not a doctor born and reared in the South who did not know perfectly well the necessity of this precaution. Whether we give the ancient calomel and jalap, or one-sixth grain each of calomel and podophyllin, for six doses, followed by a saline laxative, the practice followed in this region from earliest time has received the sanction of the leading therapeutists of the day.

Opinions differ as to the second principle, that of following with intestinal antiseptics. The majority of the profession agree in the use of these in maladies due to invasion of the bowels by microorganisms, such as typhoid fever, the choleras, dysentery. Most men employ them in all forms of acute stomach and bowel troubles. Many extend their use to the entire list of infectious fevers, believing the results of other treatment much better when the bowel is disinfected after being emptied. Some go even further, especially those who have studied the far-reaching effects of fecal toxemia. Boardman Reed, the great specialist in gastrointestinal diseases, says that, outside the infections and poisons, there is not a human disease for which a principal cause is not fecal toxemia. Of the intestinal antiseptics the sulphocarbolates are generally preferred, and here Dr. Abbott has indeed added a real improvement to our old methods.

The third principle is to secure full elimination through kidneys and skin. The more recent studies of the bacteriologist show the perils lying in retention of toxins in the body. Failure of renal elimination spells death. The exhibition of powerful remedies requires a knowledge on the part of the prescriber that the exits are free, or else we risk adding to the patient's perils. So that the good doctor, like the skilful

general, does not venture until sure his line of retreat is open.

If instead of eliminating 1000 grains of solids in twenty-four hours, the kidneys are excreting only 250 grains, one would hesitate to add to the accumulation of toxins even an ordinary dose of morphine or digitalis.

Here I must say a word in praise of the sedative principles so popular of late. Aconitine, veratrine, and gelseminine are our three standbys in fevers, and they all stimulate excretion so powerfully as to provide for their own elimination and that of much morbid toxic matter as well. Hence, these principles and the plants from which they are derived have always been the favorite remedies in fevers when toxemia is most marked and most perilous.

This trenches upon our fourth principle, that of restoring balance to the circulation and controlling fever and inflammation. This we accomplish by the conjoined use of digitalin and aconitine: the former to contract the engorged vessels, the latter to relax those in a spastic condition; reinforcing in the sthenic cases with veratrine, in asthenic, with strychnine. By these combinations we rule the pulse and temperature with the same firm grasp with which we control a trotter with the lines.

The fifth principle is found in treating the symptoms presenting themselves in each particular case. Here is the opportunity for the display of knowledge as to the properties of the many remedies and of skill in their application.

Sixth I place that treatment that is directed against the specific element of the disease. It is said we have as yet five specifics only—mercury for syphilis, quinine for malaria, pilocarpine for erysipelas, calcium sulphide for gonorrhea, and antitoxin for diphtheria. Not one of these socalled specifics is applicable to every case of the malady, unless it is in gonorrhea.

To these we hope to add the various serums as they are perfected. The typhoid vaccine deserves especial commendation. We may here place also some remedies that are specific for certain conditions. Nuclein increases the number and activity of the leukocytes, and hence is indicated in every infectious malady. The sulphide of calcium given to saturation renders the body proof against all parasites, internal and external, it is claimed, hence may be given as a prophylactic in epidemics. Pilocarpine enormously stimulates phagocytosis, like nuclein, and may be employed similarly. Arsenic in organic forms has been found effective in syphilis, malaria, and trypanosomiasis—three affections due to animal parasites in the blood. Its value in vegetable-parasite diseases has not been similarly proved, but the experience of hundreds of clinicians has led them to prefer the arsenate over all other salts of strychnine, for use in infectious fevers, and there may be a reason for this preference.

These six principles, thoroughly comprehended and put habitually into practice, go far to simplify our work. Exceptional cases demand exceptional treatment. In treating sunstroke, when there is a temperature of 112° F., I should not stop to test the urine or give a bit of calomel every hour for six doses, but at once proceed to cool the patient down. But most cases the routine suggested fills the need, and provides the best foundation for the specific treatment directed against the specific conditions present.

I shall go into the details of only our most common disease, typhoid fever, which, if closely followed, I believe will result in at least 95 percent of recoveries.

First: Regardless of bowel conditions, whether constipated or with diarrhea, I invariably begin treatment with calomel, ipecac, and soda or calomel, podophyllin and bilein; or, with younger children, calomel and aromatics, followed by saline laxative. For fever I give a solution of aconitine, *pro re nata*, in teaspoonful doses every one-half to two hours as needed under the conditions.

This is my fever rule:

When the temperature reaches 102° F. give the fever solution every half hour until the temperature goes below 102 degrees and the patient's skin becomes moist. Second: When the fever reaches 101 1-2 ° F. give the aconitine solution every hour. When the fever is 101 degrees give it every two hours till it drops to 100 1-2 degrees and then stop it.

To recapitulate: The fever drops every two hours when the temperature reaches 101° F., if it goes up to 101 1-2 degrees, every hour till it drops. If the fever goes to 102° F. or above, give every half hour till it drops to 101 1-2 degrees.

In no case of typhoid fever, at any stage, do I permit any sweet milk whatever to be given. Personally, I consider that sweet milk has done more harm in typhoid fever than all other suggested diets combined. Why? Because sweet milk contains four constituent elements which, put into the stomach at any temperature and coming in contact with the gastric and intestinal juices, must of necessity be broken into its four constituent elements. And here is what results: first, chemical change; second, fermentation; third, decomposition and evolution of gases; fourth, distention. Some of our great clinicians to the contrary notwithstanding, there can be no doubt but that this quadruple process lies at the bottom of all the cases of tympanites, distention, and serious bowel trouble, with final hemorrhage, and frequently perforation and death, that occur. Never, never, give sweet milk in typhoid fever.

I am not so sure that, as a rule, buttermilk is deleterious in these cases, but in my personal experience, a few cases in which I have given buttermilk have fallen so far short of doing as well as when I do not use it, that for more than five years I have not prescribed it in a single instance, nor do I ever intend to again; for I believe that buttermilk will undergo at least some decomposition and fermentation with evolution of gases, with the necessary distention and other bad effects. Of course, the patients get all the cold water they want.

For the severe headache, when present, apply the ice-cap, also a bandage over the eyes, so there is no question about all light being excluded. This, without any coaltar derivatives or other anodynes, will control the cephalalgia.

Here are my prescriptions, which may be varied according to age, these being for an adult: Intestinal antiseptic tablets (compound sulphocarbolates), grs. 5, No. 12; copper arsenite, gr. 1-100, No. 24; liquid peptonoids or panopepton, enough to make 6 ounces. Give a tablespoonful in a little water at 6, 10, 2, 6, 10 on the clock, during the day.

At 8:00 a. m. and 4:00 p. m. I give the patient albumen with, or without, orange juice. At 12 m. and 8 p. m. I give the patient one tablespoonful (not two nor three, but one) of beef extract, which I have made in the home. Place beef, cut quite fine, into a Mason fruit-jar, screw on the cap, using a new rubber washer, place the jar in warm water over the source of the heat (with the jar weighted down) and allow the water to boil *around* the jar until the juice seems all extracted; then pour the juice into another sterile bottle and place on ice. Prepare this fresh every forty-eight hours. *This, and nothing else, is the diet.* Of course, it will be given in less dose to children. One teaspoonful of the beef extract for a child ten years old, and one and a half or two teaspoonfuls of the liquid-peptonoids mixture as directed above.

Now you will notice that the patient is expected to rest unmolested from 10 till 6 o'clock. I try to make that an invariable rule—eight hours of unbroken rest and sleep for the night.

Keep the bowels open by using, say, a reliable effervescing saline laxative; nothing else. This will not cramp and twist and make a turmoil in the intestinal tract. If the tongue persists with the brown coat, dry, thick and cracked, then emetine, 1-164 grain every half hour for six doses and repeated in twelve hours one or two times if needed, will moisten the tongue and assist very materially in the change of that organ. Cleansing of the mouth with a solution made by placing one tablet of a good menthol compound in three-fourths glass of water, to which is added two tablespoonfuls of glycerin, will prove very pleasant and, if persisted in, will do away with the bad tongue in typhoid fever.

In a greater proportion of cases the treatment here outlined is all that is needed. If, however, in some instances the belly persists in being distended, all we have to do is to give two 5-grain intestinal antiseptic tablets at 8, 12, 4, and 8 o'clock, during the day, after the feedings as directed.

Of course, for the complications that may arise in a given case we may have to vary the treatment some. Once in a while I encounter a patient who will sicken and tire of liquid peptonoids, or another of the panopeptone. In such case use the other one; or where the patient tires of both, I find that equal amounts of the two mixed is borne well. After the first week or ten days, instead of the straight aconitine solution for fever, I use the dosimetric trinity, which has the same amount of aconitine, with the addition of strychnine and digitalin. That is, when the bowels are a little weak. But in case the pulse is full and a little hard, like the stroke of a hammer, I use defervescent compound instead of dosimetric trinity compound, as it contains veratrine instead of strychnine, and the veratrine will soften that hammer-pulse and act admirably.

I never have any occasion whatever to give whisky in typhoid fever—in fact, I never have occasion to use whisky in any disease I have ever treated. When it happens that the fever persists, with a temperature above 102° F., in spite of half-hour doses of the fever mixture, then I resort to sponge-baths, beginning at either extremity and going over the entire body.

Order a teaspoonful each of table-salt and of vinegar to be put in a quart of water, and tell the nurse to take plenty of time, not to wring the cloth too dry, and not to dry the patient. Rather after sponging, say, an arm, let her take hold of the hand of the patient and hold it up and then fan the arm till dry. The same way with the other arm, then the chest, the body, and so on, portion after portion. I never use ice-water; if the patient objects to cold water I tell the nurse to make it tepid. These sponge-baths, in conjunction with the fever mixture, will successfully control every case of persistent elevation of temperature. If thus bathing of the entire body once does not bring the temperature down (take about fifteen minutes for the procedure) go right over the body again.

I do not hesitate to insist that a fair trial of the treatment as here outlined will prove satisfactory, and if generally adopted, I firmly believe it would lower the death-rate in typhoid-fever cases by 50 percent or more. When some old "granny" or anybody else insists on more nourishment for the patient, say "No!"—with both fists doubled up and your hair on end, stamping the floor with both feet, to emphasize your determination. Keep the mess out of the sufferer's intestines and let those infected Peyer's patches have a chance to heal with the sulphocarbolates and copper arsenite doing their disinfecting and germicidal work.

Ergotin: Its Physiological Action and Therapeutic Indications

By HAROLD HAMILTON REDFIELD, M. D., Chicago, Illinois

Professor of Therapeutics in Bennett Medical College, Medical Department of Loyola University; Chief Therapeutist and Attending Physician at the Jefferson Park Hospital

EDITORIAL NOTE.—Professor Redfield is preparing for CLINICAL MEDICINE *a series of practical drug studies, of which this is the first. Those who are familiar with his book, "A Compend of the Active Principles," will anticipate a real treat in these articles.*

THE analysis by Kobert, as published in 1885, shows ergot to contain three active principles, namely: Ergotinic acid, which has an effect upon the heart and stomach; sphacelinic acid, affecting the uterus, is stimulant to the vasomotor system, and produces chronic ergotism; cornutine, which is an alkaloid, causes convulsive ergotism.

Ergotin is an alcohol-purified aqueous extract of ergot, and according to Merck possesses the same action and range of value as does the whole drug itself.

Physiologically, it may be considered in the roles of an emmenagog, oxytocic, hemostatic, antihidrotic, and parturient. It causes a rise in blood pressure, due to a stimulating action on the arterioles as well

as upon the vasomotor center and the muscular structure of the blood-vessels. It is a motor-excitant, cardiac sedative, and a stimulant of involuntary muscle-tissue.

Immediately following a full dose, there is a fall in blood pressure, produced by the depressant action of the drug upon the heart. This, however, is of only short duration, and soon the constringing action of the drug on the blood-vessels becomes manifest, producing a marked rise in blood pressure, decreased blood supply, with an arterial ischemia. By some observers this is believed to result from the stimulating action of the ergotin upon the vasomotor center in the medulla and upon the unstriped muscular fibers in the walls of the blood-vessels. In contradiction to this, other clinicians contend this action is entirely centric in nature.

On the parturient uterus, it is productive of powerful contractions, brought about by a stimulating action on the spinal centers which govern the contractions of the uterine muscle. This action is not so constant upon the impregnated but nonparturient uterus, and it very often fails to initiate uterine contractions of sufficient severity to produce abortion in the pregnant female.

Ergotin increases peristalsis in the intestines, causing a blanching of the intestinal vessels, while it checks or lessens the secretion of milk, saliva, sweat, and urine.

In studying the action of this drug, it should be borne in mind that the phenomena produced by it are divided into two classes, according to whether its exhibition be in small doses over an extended period of time or in large doses for a short period of time.

Given in large doses, ergotin acts as a gastrointestinal irritant, producing nausea, vomiting, gastralgia, colic, great thirst, and purging. The action of the heart is slowed, but arterial tension is raised to a marked extent. The pupils dilate, there is vertigo and frontal headache, and the face becomes pale and sallow. It has a stimulating action upon unstriped muscle-fiber, especially that of the sphincters, producing a tonic contraction of the sphincter of the bladder, thereby making urination difficult and in some cases impossible. There is cerebral and spinal anemia, with a great fall in body-temperature; the skin is cold; tetanic spasms followed by convulsions occur. The foregoing symptoms follow the exhibition only of extreme doses, and as much as 3 ounces of the fluid extract have been exhibited daily for a week or even longer without producing any very marked action.

Chronic ergotism occurs in two groups: first, the convulsive, and, second, the gangrenous, these very seldom occurring together; the one generally excluding the other.

In the convulsive cases the convulsions are tetanoid in nature, affecting the flexor muscles, the uterus, intestinal fibers, and respiratory muscles, and terminating in coma and death, due to asphyxiation.

The gangrenous form is initiated by a coldness of the extremities and limbs, accompanied by a tingling or numbness, formication over the entire body, loss of sensibility, and total abolishment of the special senses. There are bullæ of blood, followed by dry or moist gangrene, generally of the lower extremities, buttocks, and other dependent parts. The convulsions are epileptiform in nature, and are followed by coma and death. Postmortem examination reveals the presence of changes in the posterior columns of the cord.

The specific symptomatology of this drug is well marked. Extreme fulness of the cerebral circulation, the face flushed, frontal headache, eyes bright, and great restlessness, all call for the exhibition of ergotin.

In conjunctivitis it is a most useful remedy, as well as in general imflammations of the mucous membranes. In these cases it can be employed locally or internally with the best results.

Incontinence of urine in children and in very old persons, yields to ergotin very quickly. Here there is generally a lax condition of the sphincters that demands the tonic or stimulating action of the drug. Many cases will be encountered with a lax condition of the sphincters of the rectum, the patient complaining of a constant soiling of the underclothing by escaping fecal matter. These cases show a marked and lasting improvement under ergotin.

In the congestive stage of acute dysentery it has a satisfactory action, and here it seems to act better when combined with copper arsenite, emetine or the silver salts.

Locally, a solution of ergotin is grateful in the treatment of hemorrhoids, though it should be remembered that the drug has a tendency to promote venous congestion, and this would act as a contraindication for the drug internally in these cases.

In hemorrhagic conditions of the arterial, or active, type, ergotin is a friend in need. In the passive, or venous, forms it should not be used, and here dependence should be placed on atropine.

Ergotin can be used to good effect in cardiac conditions, where it is necessary to slow the heart. Its use here is admissible only where there are no valvular lesions.

Having an effect upon coagulation, it would be useful in aneurism, to aid in coagulation by slowing the blood.

According to Da Costa, ergot gives the best results of any remedy in the treatment of diabetes insipidus.

To quiet the mania of cerebral hyperemia, it combines excellently with cannabin or gelseminine.

In the congestive forms of headache ergotin gives very good results, although not acting so well as atropine or veratrine.

It is one of the best remedies in cerebrospinal meningitis, and here its action is increased by combination with gelseminine, the two making a combination that meets every indication in the early stages.

Impotence in the male, where the underlying cause is an escape of blood from the dorsal vein of the penis, is well treated with ergotin.

In such uterine conditions as metritis, subinvolution, fibroids, polypi, and congestive dysmenorrhea, ergotin proves its value.

The Medical Situation in Europe

Is It the Handwriting on the Wall?

By MAYNARD A. AUSTIN, M. D., Anderson, Indiana

WILL the future of medicine for the practitioner in America follow in the footsteps of its elder brother in Europe? If so, it is well to consider the situation as it obtains in those four countries whose relations and commercial enterprise in this respect concern us most directly.

Sick-Benefit Insurance in Germany

Probably the highest type of medical socialism is to be found in Germany.

In 1881 Emperor William I instigated legislation requiring every man and woman working as an employee or servant at a salary of less than $450 a year to be insured against illness in certain clubs called "krankenkassen," of which there are now some twenty-five thousand in the German Empire, with a membership of fifteen millions. The cost of this insurance varies from three to thirty cents a week, two-thirds of which is paid by the employee and one-third by the employer. The benefits assured are free medical attendance, free medicine and certain medical supplies, and a sum of money during incapacity for work. A female member who is confined receives a grant of money for four weeks and an additional sum in case she nurses her baby for a period of three months. Formerly these "krankenkassen" provided their own physicians, who were paid a small salary for a large amount of work.

This law immediately excluded a large portion of the German population from the private practice of physicians, and in some districts, such as Saxony, ninety-two per-cent of the population were members of these various sick-benefit societies. This great change in the medical situation brought about an upheaval, and, after a great deal of agitation, the physicians who were regularly employed at a salary for the benefit of the members of the society were displaced and the members themselves given a right to choose their own physician.

The funds which are now at the disposal of each society for the treatment of the sick are divided among all the physicians according to a definite uniform tariff.

The insurance against illness at first included only those having an income of less than $500 a year, but recent legislation makes this insurance compulsory to thirty-six percent of the inhabitants, as it now includes in some districts all wage-earners with an income of less than $750 a year. This insurance also provides against invalidism and old age in every employee whose income is less than $500 a year. Where this carries an annuity for disablement, protracted illness, or because of having attained the age of seventy years, the premiums are paid, one-half by the employer and one-half by the employee. The government makes a small grant toward each annuity.

Insurance against accident, however, is compulsory and includes all workers at dangerous trades; and the law is based on the assumption that the employer is responsible for every accident that occurs in his establishment, irrespective of whether the employee is at fault or not, so that the entire premium must be paid by the employer.

In 1907 there was, in Germany, one physician to every 2130 inhabitants. In 1908 the proportion had decreased to one for every 1905, and in 1909 the proportion was one to about eighteen hundred population. These figures are taken from the imperial medical calendar.

Sick-Benefit Law in Austria

In Austria a similar insurance law requires all wage-workers earning less than $480 a year to become members of their respective district sick-benefit clubs, and in Vienna, alone, there are a half million members in the various clubs, the individual membership of which runs from a thousand to fifteen hundred.

An assessment plan similar to that in Germany divides the cost between the employer and the employee. The remuneration received by physicians here is probably less than that of physicians in any other country. A club of fifteen hundred members will not be able to pay out to their various physicians over $4000, the average rate of payment last year for house visits being less than ten cents for a call and six cents for an office consultation.

There were 13,202 physicians in Austria listed on the medical register in 1910. The government imposes a tax on all incomes exceeding $250, but thirty-five percent of the 13,000 physicians, or more than 4500, pay no income tax; which means that their net income is less than $250 a year. Of the remainder, only six percent pay a tax on an income above $1500 and less than $2500, while less than three percent are reported with an income of $2500, or over. In private practice in cities of 10,000 inhabitants, office-calls are from twenty-five to forty cents, and house-visits are from sixty to eighty cents.

To offset the rapidly diminishing income of the medical practitioner, the lower assembly passed a bill providing a pension for country doctors who had served in practice longer than thirty years, or before that time if one becomes permanently disabled while in active practice. The pension amounts to about $300 a year. Should a physician who is the recipient of a pension die, his family receives the full pension for the current year, after that, $150 annually [till children are of age?—Ed.].

In Austria social-reform laws have been carried to such an extent that at present ninety percent of all medical practitioners belong to an organization that is trying to prevent a further extension of medical abuse by sick-benefit societies, the same having been able to prevent the last parliament from passing a bill in which no income limit was fixed and which thus would have permitted everyone to join these benefit societies and obtain cheap medical service.

In order to combat the influence of the sick-benefit clubs, a new fee-bill has been prepared, graded to accord to the income of the respective family or person. Those earning less than $250 a year pay twenty cents for an office-consultation and thirty cents for a house-visit. Where the income is between $250 and $500 the rate is thirty and forty cents, respectively. Those with an income of over $500 have a rate of forty

and fifty cents, in addition to the carriage hire.

The Situation in France

The situation in France is better in some respects and worse in others than it is in Austria and Germany. There is less medical-club practice, but more is requested of charity. It is not the reliance upon doctors' charity which makes the condition in France so bad, but rather that the many charity hospitals supported by the municipality give opportunities for abusing those privileges offered to the worthy poor. In Paris and in the Department of the Seine out of 53,220 deaths in the year 1909, 25,221 persons died in the hospitals and had, consequently, been cared for at public expense. This means that forty-eight per cent of the mortality is associated with charity work—an increase of twenty per cent in the last fifteen years. The increase in the amount of charity work done in the hospitals is due, not so much to an increase of the worthy poor, as to the better treatment the hospitals afford and the rapid disappearance of the former unwillingness of the average patient to seek hospital care.

To remedy this evil, physicians are trying to secure legislation against any but the worthy poor receiving free service, making it a misdemeanor for anyone not in need of charity to secure the same by misrepresentation. The Administration of Public Assistance is also considering the establishment of a bureau for investigating any and all applicants for admission into these free hospitals or verifying the statements on admission.

The organization of the physicians in France goes further than in any other country. There are 94 societies having 10,000 members belonging to an association that has been active for fifty years, the same having celebrated its semicentennial April 25, 1910.

This association has a double aim, in that it assures life-pensions to aged or invalid members and assists the widows and orphans of those deceased. Membership carries with it medical protection similar to that provided in this country by the various insurance companies that insure against malpractice. The latest thing in medical insurance, however, is the offer of a Paris medical journal, which gives with each subscription a policy insuring against professional legal liability to the extent of $400.

Social legislation in France has not received the backing of the government to the extent that it has had in other countries. Nevertheless the year 1910 showed a rapid multiplication of sick-benefit societies, with about 5,000,000 members.

The great increase in the cost of living made it necessary for the federation of the physicians of Paris to make a decided increase in their fees, which are now graded according to the income of the patients. The fees for working people with a small salary now average about sixty cents for an office-consultation and eighty cents for a house-visit. For the merchants and those of better circumstances, a minimum fee of one dollar and twenty cents for a visit and eighty cents for an office-call is customary. These fees are all doubled for Sundays and for night service after seven o'clock.

(To be concluded)

HE who lets the world choose his path of life for him, has no need of any other faculty than the ape-like one of imitation. He who chooses his own plan for himself employs all his faculties. He must use observation to see, reasoning and judgment to foresee, discrimination to decide, and when he has decided, firmness and self-control to hold his deliberate decision.—John Stuart Mill.

A Rational Treatment of Gonorrheal Urethritis

A Criticism

By WILLIAM J. ROBINSON, M. D., New York City
Editor of The Critic and Guide, and of The American Journal of Urology

IT IS a very painful task to have to criticize the statements of a fellow practitioner. When it comes to attacking quacks and charlatans the author never minces words; for those people, whose sole purpose is to defraud, to cheat, to befuddle the mind, deserve no consideration. But when we are confronted with the necessity of criticizing a fellow physician who is sincere but misinformed, the matter is different. It is an unpleasant and, as I said above, very often even a painful task, but still the interests of science and of humanity should be above personal considerations; and I wish at the outset to assure Dr. Breakstone, whose article under the title "The Rational Treatment of Gonorrheal Urethritis" appeared in the January issue of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, that I have none but the kindliest personal feelings toward him. However, his paper contains so many misstatements, and the general method of treatment advocated by him is so irrational, that I would be remiss in my duty should I let it pass unchallenged.

As to take up every misstatement made by the author would render this article decidedly too long, I will limit myself to the principal points.

Absence of Complications

The author says: "When we do not use local means of treatment in acute gonorrhea we never have a single complication." Note the unequivocal phraseology of this sentence: "We never have a single complication." This statement is untrue, for some of the worst cases of prostatitis, epididymitis, buboes, stricture, we see in patients who never had any local treatment, but dosed themselves with copaiba mixtures obtained from drugstores or from oldtime physicians who did not believe in local treatment.

The author says: "If you take a patient from the beginning of an acute gonorrhea and put him to bed away from all excitement, and feed him on bread and water, in two weeks he will get well without any complication whatsoever." To hear such a statement from a presumably modern physician does strain one's patience. One would expect to hear such an assertion made by an ignorant quack, a new-thoughter, a mental-scientist, a fasting faddist, but, surely, not from one who claims to treat gonorrhea by modern methods and claims to be a specialist in genito-urinary diseases.

Recovery Without Treatment

That *somebody* might recover on bread and water without any treatment whatever may be true, but to make the statement that every patient will so recover is more than absurd. To make that asseveration, is equivalent to asserting that in each and every case the mucous membrane of the urethra is capable, unaided, of destroying all the gonococci that have invaded it. If it is true of gonorrhea, why should it not be true of many, or any, of the other bacterial diseases, such as syphilis, diphtheria, tuberculosis?

That the organism really does offer resistance to any bacterial invasion is true, but that the organism always conquers unaided is untrue. If it did, we should need no treatment, no drugs, and we should need no AMERICAN JOURNAL OF CLINICAL MEDICINE. In order to justify such a statement, the author would have to be able to show us at least fifty or a hundred cases which were so treated and which all recovered under such treatment. Is he able to offer such proofs? And why must it be bread and water? Why must the body be depleted when it is fighting germs? I repeat, such a statement is more worthy of

a Macfadden than of a professor in a medical college.

Purely a Local Inflammation

The author says: "I wish to emphasize now that gonorrhea to begin with is a purely local inflammation, and that if it is not tampered with by injections it will be a self-limited disease." Again the author shows his utter unfamiliarity with the modern conceptions of gonorrhea. It looks as if he had never heard that the gonococcus generates a real toxin, well known as gonotoxin. If gonorrhea were a purely local inflammation then we should not have gonorrheal rheumatism, we should not have gonorrheal septicemia, neither we should not have gonorrheal endocarditis.

Next as to the second part of Dr. Breakstone's statement, that "if not tampered with by injections it would be a self-limited disease," I have touched upon this before. Some of the systemic complications just mentioned and some of the local inflammations mentioned previously are only too frequently noted in patients who never had a single local injection.

The author says: "Theoretically it might be possible to prevent gonorrhea by the constant internal use of reliable urinary antiseptics, such as hexamethylentetramine." Why should it be possible? The urethra is not constantly bathed in urine, and besides the author has apparently forgotten that he himself says on the next page: "hexamethylenamine has no effect on the gonococcus."

The author says: "We must also teach our patients that the proper way to keep the penis is upwards against the abdomen. In that position circulation is more free and drainage better established." While reading this statement it is hard to believe one's eyes. How the circulation can be more free and drainage better established when the penis is upwards is certainly a mystery. Will the pus run upward or will it be more apt to run downward into the posterior urethra and then in to the bladder? Or is Newton's discovery of the law of gravitation a delusion? This is certainly a very peculiar statement for a modern physician to make.

The author says: "Stricture: As I refrain from any local treatment, stricture is an unknown complication when patients are treated by me from beginning to end." I congratulate the author on his good results, but again I must say that he shows his utter unfamiliarity with the pathology of gonorrhea when he asserts or wishes to imply that stricture is exclusively a result of local treatment. The gonococci themselves set up the inflammation; the inflammatory tissue, if long continued, changes into connective or cicatricial tissue, which produces the stricture; and some of the worst cases of hard, unyielding, impassable strictures are to be found in men who never had an injection. He seems to imply that only chemicals cause the exfoliation of epithelium. Doesn't he really know that the exfoliation of epithelium is caused by the inflammation itself? Why is the pus full of epithelia in people who never had an injection or any kind of local treatment?

Mind you, I am myself against too frequent, or too strong, or careless injections. I have written on the subject a number of times. In an editorial in *The American Journal of Urology*, in May, 1908, I objected strongly to the indiscriminate use of injections or to too meddlesome local treatment, but there is a great difference between advocating care and judgment in using injections and condemning them altogether.

Injections in Chronic Gonorrhea

In chronic gonorrhea, however, the author does use an injection, and this is the formula he gives: zinc sulphate, grs. 10; atropine sulphate, grs. 8; morphine sulphate, grs. 12; hydrastin, grs. 8 distilled water, ozs. 8. And this injection he advises to use one-half to one ounce at a time. This means to use 1-2 to 1 grain of atropine and 3-4 to 1 1-2 grains of morphine per injection. There is certainly a terrible blunder here somewhere. If such an injection would not produce dangerous toxic or even fatal results, then all our study of posology has been in vain; we have to study the thing all over again. I should like here to give the author the benefit of the doubt and say that maybe there was a typographical error somewhere, but all the way

through you see that the author really means what he says, and advises to use 1-2 to 1 ounce per injection.

The author says: "There is absolutely no danger of forcing any fluid into the bladder, for the reason that the bladder is well guarded from the introduction of fluids or air into it, by a valve. This valve, however, can only be pushed aside by a mechanical instrument, such as a sound." Again an amazing misstatement. Why, with an ordinary 50-Cc. hand-syringe we can pass fluid into the bladder without any difficulty in less than half a minute and without having to use any or hardly any force.

The author says: "In many armies the only treatment given for gonorrhea is to put the patient to bed and feed him on bread and water and milk." I should like to know in what armies this treatment is pursued. It is certainly not pursued in any armies with whose method of treatment of gonorrhea I am familiar.

The Internal Treatment

As to the author's internal treatment by copaiba and liquor potassæ, the less said the better. Because it was used a hundred years ago, or because it is used now in some dispensary for the poor, on account of its cheapness, is no reason why physicians should use it in their private practice. Copaiba is certainly one of the worst renal irritants we have, and it plays havoc with the stomach. I know that no "respectable" patient can stand it.

According to Dr. Breakstone all the advances we have made in the treatment of gonorrhea during the past thirty years have been in vain, for he still treats by the same method that has been in vogue fifty or sixty years ago. In fact, I have a little German book on the treatment of gonorrhea, published by one Dr. Hecker in 1793, and Dr. Hecker's pathology and treatment show a remarkable similarity to those of Dr. Breakstone.

One concluding word. The author says: "The gynecologists of this country could hardly make a living were it not for so many uncured or socalled 'cured' cases of gonorrhea." I fear that a large contingent of these "socalled cured" cases of gonorrhea are graduates from offices in which the treatment as outlined by Dr. Breakstone is pursued.

I do not wish to be unkind to the Doctor, but I believe that the correct title of his article should have been: "The Irrational Treatment of Gonorrheal Urethritis."

12 Mt. Morris Park W.

The Surgical Treatment of Minor Injuries

By H. H. FLETCHER, M. D., Winchester, Illinois

EDITORIAL NOTE.—The general practitioner is most interested in "every-day surgery"—and this is minor surgery. We are glad Dr. Fletcher has taken the matter up. Will not others follow with practical ideas which have helped them and will help us.

IN the treatment of minor injuries, the different parts of the body somewhat suggest certain things in the line of treatment. For instance, if the injury is on the face or exposed part of the body, the surgeon must take into consideration, along with other conditions, how he is going to get the best cosmetic results, so that the patient will have the least possible reason to complain in after-years about the result of the traumatism. Another thing which renders the technic in much of minor surgery different from major surgery is the fact that in the latter, almost always the operation is selected and the field of operation prepared, while in the average minor wound, the field of operation is, or rather has been, infected or exposed to infection before any surgical interference has been suggested or even thought of. In other words, in the major cases, it is contemplated to correct some pathological process, and the other is an emergency operation, to correct some traumatism which has more or less mutilated some portion of the anatomy.

About the first thing to be considered in taking care of a minor injury is to control the hemorrhage, if this is profuse enough at all to cause alarm. This attended to, cast about for the best method to clean the wound and get it into as aseptic a state as possible.

The one thing in minor surgery is to get the nearest possible surgical cleanness. To this end, it is necessary to have a liberal supply of hot sterile water, plenty of soap, and a proper scrub-brush. A clean wound is absolutely essential, and, if necessary, anesthetize the patient to enable you to attain that end. At all events, get the wound cleaned, in a surgical sense.

If the injured person has been working with greasy and tarry machinery or implements, it is a good idea to wash the wound and adjacent parts with gasolin (or benzin), as it will take less scrubbing, and consequently mean less cellular death, than if done with merely soap, water, and brush. Yet, all this and more may become necessary before the wound is really clean.

Injuries of the Scalp

I would make exceptions of wounds of the scalp. If it be a cut in the scalp, or if it be of a bruised character and does not penetrate clear through the skin, in that case I should shave the hair around the lesion for a liberal distance. Wash thoroughly with gasolin, dry very carefully, then sterilize the entire field with iodine solution. After these preliminaries have been diligently carried out, I think it advisable, and many times imperative, to incise down to the skull, in order that, by close scrutiny, we may discover any damage that may have been done to the skull-bones themselves.

Contused wounds of the head are more liable to have a concomitant fracture of the skull than clean-cut ones. And it must be remembered that skull fracture may occur when there is but little or no destruction of the soft tissues, especially if the hair is thick and long. Prognosis, therefore, should be guarded. For, after exercising a great amount of precaution in examining closely for any fracture of the skull and being unable to demonstrate one near the seat of injury, and at the same time the patient rapidly regains consciousness, we have reason to feel assured that the injury is not a serious one. Nevertheless, after a more or less extended lucid interval, during which he may feel quite himself and get about comfortably, following the initial shock, we may be surprised to find the patient lapsing into a state of coma. Now, if this condition follows a head injury, it almost always is due to hemorrhage, and, generally, to a hemorrhage of the meningeal artery. Here minor surgery becomes major surgery, and the scope of this paper does not cover the treatment of more serious conditions possibly connected with apparently slight lesions.

To Cleanse and Sterilize

The use of water and soap is not to be entirely condemned in the cleansing of head injuries, but the use of gasolin, to cleanse, and of iodine, to sterilize an injured field, followed by a dressing insuring abundant drainage by leaving at least both ends of the wound open, will, in my opinion, serve best.

If there is much destruction of tissue with lacerated wound edges, or if there is much contusion, it may be better to repair the wound with adhesive strips or very widely spaced sutures, or by a combination of both.

The idea that should be ever uppermost in dressing these wounds is to secure perfect drainage. Failure to do this may be followed very quickly by serious consequences. I cannot emphasize this too strongly: to be exceedingly careful about drainage in wounds of the head, placing the dressings so that they will not interrupt the flow from the wound, but rather facilitate it.

I will not enter into discussion as to the anatomical reason which renders the absorption of toxic material specially dangerous in the head region, because it is a fact, I believe, well known to all. I believe we all are more and more employing iodine as a disinfectant, and I also believe we are having correspondingly better results. I furthermore believe that heretofore we have many times used a solution of iodine

that was too strong, and suggest that if you use a less irritating mixture on open wounds, you will have more satisfactory results.

Injuries of the Palm

Another region of the body which suggests itself to me for special consideration is the palm of the hand. We have all had trying times if we ever have been called upon to arrest the hemorrhage of a palmar artery, whether it was a clean incised wound or a more or less lacerated one. I know of no region of the body, with the possible exception of the plantar area (and this is not nearly so often wounded deep enough to cause serious hemorrhage), that can so exasperate as the palmar arch, in our efforts satisfactorily to arrest bleeding here. Many times we can get the clamps on in a satisfactory way, to stop the hemorrhage; but when we attempt to ligate—ah! there's the rub.

One of the most satisfactory methods I have ever seen is to leave the clamps in place, while the wound is kept open by an excessively large moist gauze dressing placed in and around the hand so as to take up the oozing. This is not only a satisfactory way of controlling the hemorrhage, but it leaves the tendon-sheaths well exposed, and they are not nearly so liable to become seriously infected because of the perfect drainage obtained in an open wound. The clamps should be left until the collateral circulation has been well established and a sufficient clot is formed in the arteries to insure against secondary hemorrhage.

In different parts of the body it is often possible to get the wound clean enough to close with only a small place left for drainage. Then care must be exercised to approximate the edges perfectly, using horsehair sutures, where necessary, wherever, with a reasonable amount of care, the edge of the wound, even though considerably lacerated, can be brought together, so that very little visible cicatrix will result. Badly contused, and lacerated wounds, by virtue of the destruction of tissue entailed, frequently must be left to heal by granulation.

In dressing a wound it is quite necessary to put on absorptive dressing sufficiently large to take care of the secretions as well as to protect the parts. These wounds come to you, in the majority of cases, already infected, hence you must expect more or less pus, and dress them accordingly.

A few years ago we should have covered the entire wound, in such a case, with iodoform or some other dusting powder; possibly some of us are doing so still. But I think we get more satisfactory results from a moist pack of gauze generously covering the entire wounded area. This pack may be—and in a clean wound should be—sterile gauze. However, in wounds that have been exposed to infection I have for some time used gauze moistened with 1 : 10,000 solution of iodide of mercury, combined with iodide of potassium and sodium bicarbonate. This solution is about as germicidal as the bichloride of mercury, but has the added advantage of not hardening the albumins so much, nor does it corrode any instrument which it touches.

About Changing Dressings

There is probably as wide a difference of opinion with regard to the changing of dressings as on any other one point in the realm of minor surgery. In the old Billroth Clinic—now controlled by Professor Hochenegg—at Vienna, the theory is that pus generated on a wound is the most satisfactory dressing that can be maintained; and, after the first dressing has been applied, they seldom attend to a wound again before the eighth or tenth day, allowing the pus to exude from under the covering. I have seen surprisingly good results following this method of treatment, both in Vienna and in my own practice. Nevertheless, if I have much inflammatory reaction, I am not stoical enough not to open up the dressing and take a look at the wound. I believe anyone in America would put himself in position to be severely censured, to say the least, if he failed to take the precaution of inspecting such a wound.

Yet, every time we remove the gauze from the wound we certainly destroy the fine granulations to a greater or less extent and thereby do some harm to nature's

healing process. Also, when we wash the wound with antiseptics we surely invite a less kindly action in the healing of the wound.

For all that, it is imperative (even in view of the fact that a patient is more or less immunized against his own germs) to practise absolute cleanliness in the after-dressing of wounds, and looking carefully to protecting the surrounding integument from excoriations, which may at any time occur if the wound is not kept clean and healthy. When these excoriations do develop, dusting powders or protective ointments certainly become absolutely necessary at times and are a great satisfaction.

Finally, if minor wounds are carefully and thoroughly cleaned and thorough drainage is established before the first dressing is applied, then reasonable care taken in subsequent dressings until the wound is completely healed, the vast majority will have a very satisfactory ending.

The General Practitioner as a Gynecologist

Everyday Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

VI

Ingrowing Hairs of the Vulva

OCCASIONALLY much distress is caused by ingrowing hairs—*trichiasis*. In every case of pruritus it is desirable to examine the labia majora and perineum carefully and if inverted hairs are discovered they should be promptly removed with epilating forceps. As a pustule usually surrounds each abnormal hair, extraction in most instances is easy. Sometimes, however, it may be necessary to destroy the hair-follicle by electrolysis. The needle is inserted alongside the hair, the current turned on for half a minute, then shut off, and the hair finally extracted with a slight rotary or twisting motion. It is not desirable to remove many hairs at one sitting, especially from the labia or the region of the anus.

After treatment, compresses wrung out of a hot carbolated epsom-salt solution may be applied for an hour and the parts covered with a few thicknesses of gauze soaked with a weak alcoholic solution of thuja. Ointments and powders are objectionable, since they retain the secretions, macerating the hairs and tending to form crusts.

Enlargement of the Labia Majora

This condition may be due to varicose veins, hydrocele, inguinolabial hernia, simple edema, cysts, benign or malignant tumors, erysipelas, and elephantiasis. The last-named disease, in its true form, fortunately, is rarely observed in this country, but now and then a case is reported, and, as results from medical treatment can only be secured in the very earliest stages, it behooves the gynecologist to be able to make an accurate diagnosis. Unfortunately this is not by any means an easy matter—unless the presence of *filaria sanguinis hominis* can be detected with the microscope.

Unquestionably the term "elephantiasis" has been improperly used in describing the stasis hypertrophies which are caused, in most instances, by chronic ulceration of the tissues around the vaginal orifice. The resultant scar tissue obstructs the blood-vessels and lymphatics and infiltration and hypertrophy of the tissues is a natural consequence.

Should elephantiasis be suspected—and sporadic cases are seen in all parts of the world—the blood and urine should be examined by a competent pathologist and the patient placed at once upon calcium sulphide, one-third grain being exhibited every two hours during the waking day for a month. The dose is then doubled for two weeks more, and finally 2 grains are given three times daily for a further period of two or three months. Some remarkable

results have been obtained from this treatment in Ceylon. The arsenates of iron, quinine and strychnine, and calx iodata may be given as alternants.

Locally iodine (preferably in glycerin) and oleate of mercury should be applied daily, and constant compression secured.

The character of these articles precludes a full presentation of the symptoms, but an acute lymphangitis in a woman (especially one who has resided in a tropical country) involving the labia, clitoris and nymphæ, and accompanied by pronounced systemic disturbances, amenorrhea, and perhaps chyluria, should be regarded with suspicion. If the attack subsides in two or three weeks, leaving the vulva edematous, only to recur within a short period, the suspicion becomes almost a certainty.

The treatment of the disease in its chronic form is of course surgical.

The Treatment of Varicose Veins

Varicosities of the labia are frequently encountered in pregnant women and, as a rule, require little attention. If, however, the veins become extremely dilated, and itching, burning and aching of the parts are complained of, treatment is necessary. As a first procedure the physician should assure himself that no garment is worn which in any way impedes circulation. The skirts should be suspended from the shoulders, and corsets of the ordinary type discarded. A properly fitting abdominal supporter (maternity belt) should be worn in the daytime, and the patient instructed to rest upon her back for an hour or so three or four times daily.

Constipation must be corrected and if the sphincter ani is constricted—as it very frequently is—gradual dilation secured. Very few practitioners realize fully the disorders which arise from sphincteral constriction. Intestinal atony may not exist, the feces pass into the rectal ampulla "on time" and in a normal condition, but are there retained by an insensitive and rigid sphincter until the bowel rebels against further distension and expulsion of the now dry mass becomes imperative. Under such circumstances naturally the woman objects to going to stool and puts it off. Naturally, also, she finally has to strain considerably, and as a result we have varicose veins, fissures, and other local disturbances.

To give a woman cathartics under such circumstances is worse than absurd. The proper procedure is to remove the obstruction. It is hardly necessary to call attention to the undesirability of allowing the fluid portion of the feces to be reabsorbed. I am aware that some clinicians claim that the absorptive power of the lower bowel is nearly *nil*, but my observation leads me to hold a different opinion.

In four instances I have caused quite extensive and troublesome varices to disappear by dilating the sphincter, relieving obstipation, and applying a good abdominal belt. If the vessels of the vulva are moderately enlarged in the pregnant woman—every other condition being satisfactory—apply a compress of cotton in gauze (or lint) and a "T" bandage. The application of clothes wrung out of a *hot* solution of hamamelis and calendula will promptly relieve the aching, itching and burning most women complain of. In rare instances cold applications prove most beneficial. Lead water and laudanum is an old-time but reliable remedy.

The woman should be warned of the possibility of rupture of a vessel and instructed how to proceed under such circumstances.

Extensive varicosities in the labium of the nonpregnant woman call for operative interference.

Hydrocele in the Woman

Hydrocele is rarely observed and the treatment is of necessity surgical. The tumor may cause great annoyance and now and then a newly married woman comes to the doctor demanding relief from a condition which precludes or markedly interferes with sexual congress. Less often the accoucheur finds a hydrocele when he examines a woman prior to delivery.

Such tumors are painless, elastic, and practically translucent, resembling in every respect hydrocele in the male. Occasionally the sac becomes infected (suppurative hydrocele) and it then becomes necessary to make an incision and evacuate the

rather extensive collection of pus. The cavity should then be irrigated with a warm antiseptic solution, curetted, and packed with gauze saturated with antiseptic oil; one part of oil of thuja to four of sterilized cottonseed oil serve excellently. Thymol iodide in an oily vehicle may also be used with advantage.

An Anterior Hernia

This must be differentiated from hydrocele, enlargement of a vulvovaginal gland, and lipoma. The sooner the condition is recognized the better. The affected woman may complain of pain in the lower abdomen or about the symphysis. Usually this is spasmodic and "griping" in character, but occasionally it is merely a vague discomfort, and a sense of weight or dragging is experienced upon exertion.

In the early stage, the hernial tumor presents the appearance of a small globular swelling just below the external ring; gradually it descends and assumes, in the labium, a sausage-like form. When the intestine occupies only the sac (enterocele) the tumor is smooth and elastic, and a distinct constriction will be noted at the upper end. Upon pressure the mass becomes smaller; it is also reduced when the woman is in the recumbent position.

Coughing and straining cause an increase in the size of the mass; as in inguinal hernia in the male, a distinct impulse is communicated to the examining finger when the patient coughs. By manipulation, the intestine can be returned into the abdominal cavity, and if the ring is occluded temporarily there will be no sign of swelling even though the woman cough and strain while erect.

If the tumor is doughy and upon percussion yields a dull note, omentum has descended; reduction is then more difficult. When intestine and omentum are present (enteroepiplocele) there is little impulse upon coughing; dull and resonant areas are detected upon percussion; while one portion of the tumor is rounded and elastic, the other will be uneven and boggy to the touch. The peculiar gurgling which is heard when intestine alone is reduced may or may not be heard if taxis is practised in this form of hernia.

Before applying a truss or attempting operation it is essential to prove positively the absence of the uterus or appendages from the sac. If present, the uterus can not be palpated in the pelvis and the labial tumor is dense, irreducible, and irregular in outline. Once in a while some physician far from counsel is called to attend a woman presenting a labial tumor which increases in size with extreme rapidity. He may have difficulty in convincing himself that he has to deal with a gravid uterus, but if he is a wise man he will hustle his patient off to the nearest hospital and avoid a most harassing experience.

Rarely an ovary occupies the upper portion of the sac; it may be felt as a small kernel-like body, and pressure upon it causes dull pain and distinct nausea. The application of a truss under such circumstances would, of course, be a barbarity; still, just such a procedure was recommended by a busy practitioner a few months ago.

The gynecologist who would succeed must take nothing for granted, and should adopt as his motto: "Treatment to be effective must be based upon a definite understanding of the pathological conditions requiring correction." The physician should ever keep this in mind.

(To be continued)

HASTY condemnation—that is the crime we all most frequently commit. Why, it is hard to say. It brings no booty, gives no pleasure, serves no particular purpose. Perhaps it is just a common human frailty. But, nevertheless, it goes on adding to the world's tears, sadness and sorrow.—*American Medicine.*

The Therapeutics of Neurology

From the Practical Side

By THOMAS GEORGE ATKINSON, M. D., St. Louis, Missouri

EDITORIAL NOTE.—This is the second article in Dr. Atkinson's interesting series, which was begun in February. More papers on "Neurology" will follow in succeeding issues.

II

Cerebrospinal Meningitis (Spotted Fever)

Pathology: Essentially the same as that of simple infective meningitis of a highly intensified form.

Treatment: The same as that of simple infective meningitis, but owing to the intense virulence of the generated toxin, treatment usually is unavailing. Nevertheless, remedial measures should be energetically carried out. The remedies indicated should be pushed to the limit. The frightful pain in the early stage generally makes opium [morphine] imperative.

Flexner's serum has a sufficient record of success in these cases to make its trial a routine part of treatment.

Tuberculous Meningitis (Hydrocephalus)

Pathology: Essentially the same as that of simple infective meningitis due to deposit of gray miliary tubercle. Affects chiefly the pia-arachnoid of the basal brain, and is usually subacute.

Treatment: The same as that of simple infective meningitis, but is usually unavailing. Intercurrent measures to combat the tuberculous element.

Calx iodata in fairly large doses for iodine and lime effect.

The arsenates of iron, quinine and strychnine for tonic and alterative effects.

Myelitis

Pathology: Congestion, dilatation, stasis, and toxins in the small vessels of the cord, with irritation of the gray matter. Later, exudation, infiltration, pressure-necrosis, and finally interstitial hyperplasia. The difference between diffuse and transverse myelitis is one of area, not of general pathology.

Treatment: Derivative and absorptive. In the acute form:

Atropine, in minute doses, to relax general vasomotor system.

Veratrine and aconitine, to dilate systemic capillaries, slow the heart, and promote secretions.

Colchicine, to promote elimination by the liver, kidneys, and skin.

Elaterin, occasionally, followed by saline laxative, to keep the intestinal canal clean and depleted.

Gelseminine, in small doses, as a spinal antispasmodic.

In the chronic form, or stage:

Ergotin, in small doses, to tone up spinal capillaries, and thus promote absorption and regeneration.

Cicutine, as an efficient spinal relaxant.

Iodine and mercury, if absorption does not occur under ergotin, or if there is a specific taint.

Laxative salines and intestinal antiseptics should be used throughout.

Do not give strychnine.

Acute Anterior Poliomyelitis (Infantile Paralysis)

Pathology: Violent congestion of small vessels of motor horns of cord, due to virus of unknown microorganism. Exudation, infiltration, pressure-necrosis, and finally interstitial hyperplasia of those neurons in which resolution does not take place.

Treatment: Derivative, absorptive, alterative.

Veratrine, aconitine, and digitalin, in combination, in the active stage, to dilate capillaries, slow heart, and equalize circulation.

Brisk saline purge of the bowels.

Cold to back of neck and heat to extremities, for derivative effect.

Later, when active symptoms subside:

Ergotin and cicutine to tone up spinal capillaries and relax the neurons.

Gelseminine, as a spinal antispasmodic.

Colchicine to stimulate liver and kidneys, and pilocarpine to stimulate skin, guarding the heart with strophanthin.

Calx iodata, intercurrently, for absorptive and alterative effect.

Lecithin, to nourish nerve-tissue.

Galvanism immediately upon subsidence of inflammation, to maintain contractility of spinal muscles pending recovery of neurons. Useless to restore the neurons themselves, hence should be stopped after reasonable time, say two or three weeks.

Keep the bowels clean and aseptic.

Neuritis

Pathology: Dilatation, stasis, congestion, and toxins in small vessels of peripheral nerves; later, exudation, infiltration, usually followed by resolution, but sometimes by interstitial hyperplasia. In alcoholic cases, the vasomotors are hopelessly relaxed and the vessel-walls sclerosed. In the lead and arsenic types, the specific metallic toxicity is responsible for the pathology.

Treatment: In the simple forms derivative and absorptive. In the toxic forms almost entirely eliminative. In the simple forms:

Veratrine and aconitine, to dilate systemic capillaries and slow the heart, thus equalizing circulation. Veratrine is ideal, because it soothes the nerves, and may be used as a local application.

Gelseminine, as a spinal antispasmodic, giving the neurons physiologic rest.

Colchicine and lithium benzoate, to unload blood of effete matter, which is often the cause and always the aggravator of neuritis.

Calomel and a laxative saline, to clean the intestines.

Ergotin in the later stages, to promote tone and absorption.

In alcoholic forms:

Same treatment as above, with special measures for alcoholism.

In lead and arsenic forms:

Colchicine, to promote general elimination.

Sulphur and magnesium, to antidote metallic poisons. A sulphur laxative and epsom salt are excellent because of their sulphur and magnesium content.

Landry's Paralysis (Acute Ascending Paralysis)

Pathology: A combination of the pathology of acute myelitis and polyneuritis (which see).

Treatment: That of myelitis and neuritis. Treatment is rarely availing, however, as the process quickly involves the bulbar region, and death occurs from interruption of respiration.

III. Degenerative Diseases

The degenerative diseases of the nervous system are admittedly a more or less hopeless class of ailments—a character which they share in common with primary degenerations of all tissues and organs, just as they share their essential pathology, namely, a primary degeneration of the tissue proper and its replacement by connective tissue. The prognosis is not very bright, even under the most favorable conditions and with the most intelligent treatment. Degenerative processes have a disagreeable way of progressing in spite of anything that may be done to check them; the humiliating truth being that we seldom succeed in making any impression on their course.

But for all that, it is neither scientific nor professional to stand aside, with a shrug of the shoulder, and let things take their course. The ideal of a physician, to be sure, is to cure disease. But ideals are not always attainable. The duty of the physician is to ameliorate where he can not cure, and to limit where he cannot altogether check the ravages of disease. And this he will most effectually do, not by a "masterly inactivity" or by the senseless iteration of a worn-out formula, but by an active, intelligent, resourceful application of well-defined therapeutic principles, both abstract and concrete, to the pathology of the condition in question.

In this class of diseases, also, the old-line plan of treatment shows a negligent disregard, if not a positive repudiation, of the morbid physiology of the case. The mainstay of its therapy is direct stimulation, as represented in the habitual use of strych-

nine. Arsenic and silver nitrate have the same significance. Just what beneficial influence such a therapy can be expected to exert upon a tissue which is being slowly replaced with connective tissue, it is hard to understand. It can only stimulate the remaining tissue to greater activity, thus hastening its doom and meantime keeping the patient "on edge." If, therefore, this modest treatise should accomplish no more than to discourage the routine use of strychnine and kindred drugs in these diseases, it would not have been written in vain.

The rational therapy of degeneration is alterative, reconstructive, and antispasmodic. The threefold purpose is to check interstitial hyperplasia, to assist in building up (not whipping up) the enfeebled tissue in a condition to degenerate, and to give the neurons physiologic rest.

The first two indications have long been therapeutic bugbears; but the feasibility of meeting them has, more recently, been greatly enhanced by the fortuitous addition of two notable remedial agents to our materia medica, namely chromium sulphate and lecithin. As to the first one of the substances just named—chromium sulphate—it has been shown that it exercises a remarkable power of checking interstitial hyperplastic degeneration far superior to that of gold; while the other—the lecithin—is known to furnish an important element in the upbuilding of nerve-tissue and in fortifying it against degenerative tendencies. These two agents play a large part in the therapy laid down in these pages.

The degenerative group of nervous diseases includes the following, under which heads they will now be discussed in detail:

Paresis
Multiple Sclerosis
Brain Tumors and Abscesses
Cerebral Hemorrhage
Cerebral Embolism
Cerebral Thrombosis
Bulbar Paralysis
Lateral Sclerosis
Locomotor Ataxia
Syringomyelia.

Taking these degenerative nerve diseases in rotation, the first to engage our attention is

Paresis (General Paralysis of the Insane)

Pathology: Break-down of small vessels of cortex of brain, with tiny hemorrhages into brain-substance. Degeneration of brain-cells and replacement with connective tissue, followed by descending degeneration of entire neuron tracts.

Treatment: Alterative. Practically hopeless.

Keep digestive tract clean and clinically aseptic by means of phenolphthalein and laxative salines, with occasional course of sulphocarbolates, to relieve system of toxemia.

Gelseminine and hyoscyamine, as antispasmodics. *No bromides.*

Calx iodata for alterative effect.

Nerve-lecithin, to nourish brain-tissues.

Multiple Sclerosis

Pathology: Scattered foci of primary dedeneration in brain and cord, with replacement by connective tissue. The axons are not involved, but the sheaths are usually degenerated.

Treatment: Alterative and constructive.

Chromium sulphate, to check hyperplastic degeneration.

Hyoscyamine and gelseminine, to act as antispasmodics and relaxants. *Do not give bromides.*

Calx iodata, for alterative effect. (Iodides are useless.)

Nuclein and lecithin, to combat anemia and to build up the nerve-tissues. *Do not give strychnine.*

Keep the intestinal tract clean and clinically aseptic, to avoid toxemia.

Brain Tumor

Pathology: Neoplasm of the cerebral tissue or of the meninges. Next to the tubercle and syphiloma variety, the commonest type is glioma. Malignant growths are rare.

Treatment: Purely surgical.

Brain Abscess

Pathology: An acute or chronic suppurative inflammation of the brain, localized or

diffused, primary or secondary; usually localized and secondary. In other words, an encephalitis which, by reason of a mixed infection, goes to suppuration.

Treatment: Purely surgical.

Cerebral Hemorrhage (Apoplexy)

Pathology: Effusion of blood into brain-substance, usually sudden and violent, from ruptured vessel, due to high blood pressure or impairment of vessel-wall, or both. Trauma and degeneration of brain-substance in area of hemorrhage, followed by interstitial hyperplasia and descending degeneration of affected neuron tracts.

Treatment: Revulsive, absorptive, alterative.

Atropine and glonoin, in small doses, as a prompt relaxant of all the vasomotors, to relieve cerebral tension and stop bleeding.

Elaterin, hypodermically, as a revulsant through the bowels, followed by a saline laxative.

Aconitine, veratrine, and digitalin, in combination, when reaction sets in, to keep capillaries dilated, slow up heart, and equalize circulation. Hyoscyamine is an excellent adjunct.

Cold to head and neck and heat to extremities, as derivatives.

After active symptoms have subsided:

Calx iodata, for absorptive and alterative effect.

Colchicine, to unload effete matter.

Ergotin, to tone up capillaries, if there is no arteriosclerosis.

Do not give strychnine.

Except for the above, the less medicine given, the better. Keep the intestines unloaded and disinfected, so as to relieve the system of autointoxication.

Cerebral Embolism

Pathology: Stoppage of circulation in an area of the brain, due to blocking of an artery, usually sudden and violent. Anemia of the part, degeneration, and replacement either with soft or connective tissue.

Treatment: Derivative and absorptive.

Hyoscyamine, in small doses, to quiet the circulation and establish a mild derivative state of capillaries.

Gelseminine, to antidote the irritative symptoms.

Calx iodata, for alterative effect.

Lecithin, in order to nourish the nerve-tissues.

Keep intestinal tract clean and relatively aseptic with saline laxative and intestinal antiseptics.

Colchicine, to unload the blood of effete matter, and thus promote absorption of the clot.

Cerebral Thrombosis

Pathology: Anemia of area of brain, due to gradual lessening of lumen of artery by arteriosclerosis or deposits.

Treatment: Same as that of embolism.

As the underlying endarteritis is generally either due to syphilis or lithemia, the appropriate treatment for these conditions, respectively, should be given.

Bulbar Paralysis

Pathology: Bulbar paralysis is not a distinctive disease of the nervous system, but signifies any of the organic nerve lesions which happen to involve the bulbar region, whether inflammatory or degenerative in character.

Treatment: For the reason stated, the treatment is of the kind and the severity of the pathologic process at issue. Treatment is always unavailing. The trouble is invariably progressive, in spite of all medicinal treatment.

Lateral Sclerosis (Spastic Spinal Paralysis)

Pathology: Primary degeneration of lateral (motor) tracts of cord, with replacement by connective tissue. Amyotrophic and myotrophic forms differ only in area attacked, not in essential pathology.

Treatment: Alterative and constructive.

Ergotin, in order to tone up the spinal capillaries.

Cicutine and gelseminine to act as spinal antispasmodics and relaxants.

Chromium sulphate, to check interstitial hyperplastic degeneration.

Lecithin, to nourish nerve-tissue.

Calx iodata, intercurrently, if there is a specific taint. (Iodides are useless.)

Do not give strychnine.

Keep the intestinal tract clean and aseptic. Occasional warm baths relax tension and assist metabolism.

Locomotor Ataxia (Tabes Dorsalis)

Pathology: Primary degeneration of the peripheral sensory roots, with secondary ascending degeneration of posterior and middle tracts of cord, followed by replacement by connective tissue.

Treatment: Alterative and reconstructive.

Ergotin, to tone up the spinal capillaries.

Hyoscine and solanine, to control the pains and act as antispasmodics. Hyoscine, morphine and cactin, in full doses, if pains are severe.

Chromium sulphate, in large doses, to check hyperplastic degeneration. This will arrest progress in almost all cases taken in the earlier stages.

Antisyphilitic remedies are powerless over the nerve lesions, but a full dose of salvarsan may be given intravenously, to supersterilize the blood. Stillingin will also tend to combat the specific taint.

Nuclein and lecithin, to combat anemia and nourish nerve-tissues.

Arbutin and lithium benzoate, if cystitis threatens.

Keep the bowlels clear and clean.

Syringomyelia

Pathology: Soft degeneration of foci in cord, resulting in cavities, due to gliomata or gummata.

Treatment: Alterative and reconstructive. Usually unavailing.

Ergotin, which is used to tone up the spinal capillaries.

Hyoscine and gelseminine, as spinal antispasmodics.

Nuclein and lecithin, to combat the anemia and promote restoration of the nerve-tissues.

Keep intestinal tract clean and clinically aseptic.

Paralysis Agitans (Shaking Palsy)

Pathology: Atrophy of nerve-cells both of brain and cord, and interstitial hyperplasia. In fact, the conditions are similar to those which characterize the onset of senility.

Treatment· Alterative and reconstructive.

Ergotin, to tone up the capillaries, provided there is no arteriosclerosis—when it is contraindicated.

Hyoscine, in small doses, is the best antispasmodic remedy; used to restrain the palsy and give the neurones physiological rest.

Chromium sulphate may be tried in fairly large doses, to check the hyperplastic process.

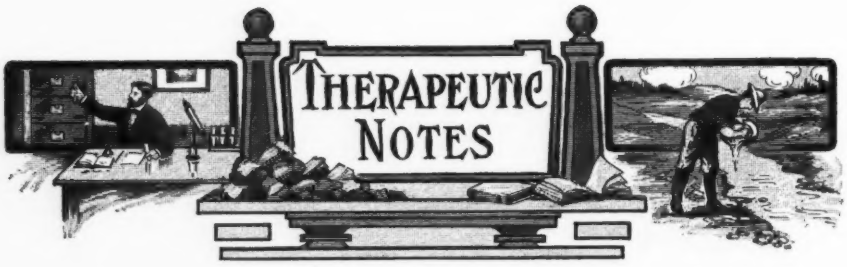
Nuclein and lecithin, to combat anemia and build up the nerve-tissue.

Colchicine and laxative salines, to maintain elimination.

(To be concluded)

Infection

A baby smiled in its mother's face;
The mother caught it, and gave it then
To the baby's father—serious case—
Who carried it out to the other men;
And every one of them went straight away
Scattering sunshine thro' the day.



CALCIUM CHLORIDE IN HEMATEMISIS

Calcium chloride given in 30-grain doses every three hours until bleeding ceases is the procedure resorted to with asserted success, by some writers; and this, plus the subcutaneous injection of a 2-percent solution of gelatin, has lately been tried in the Johns Hopkins Hospital, with good results.—Israel Bram, M. D., in *Merck's Archives*, 1912, Jan., p. 4.

PERSISTENT VOMITING OF PREGNANCY

Silvestri (*Wien. Med. Woch., 1911, No. 47, 3028*) assumes, from the results of his clinical and experimental investigations, that the cause of persistent vomiting in pregnancy may sometimes be due to the diminished function of the adrenals, and he advises, in all cases where no other cause can be determined, to administer preparations of those organs. Perhaps this explains why calx iodata has proven so effective in these cases. Iodine stimulates the adrenal system, according to Sajous.

THE ACTION OF NITROGLYCERIN

The following passage is quoted from Reynold Webb Wilcox's "Pharmacology and Therapeutics," seventh edition, page 353:

"Nitroglycerin appears to do good by restoring or approximately restoring, at least for a time, the normal relationship between the force of the heart's action and the resistance of the vessels; and the pulmonary circulation itself is no doubt favorably affected by its action. Its beneficial effects are not so much due to any direct action on the heart, as to its diminishing the resistance against which the systole is performed; so that the contraction of the ventricle is rendered more complete, and the output of the heart increased."

THE TREATMENT OF INFECTED WOUNDS

F. Ruska (noted in *The International Journal of Surgery*, 1911, Dec.) recommends glycerin dressings in infected wounds, because they aid the resisting forces of the organism in the battle against bacteria by relieving congestion and promoting the circulation of tissue-fluids in the affected parts. In this way they also keep the wound clean and soften and loosen crusts and necrotic portions of tissue, so that the chief factors favorable to the growth of microorganisms are removed, while at the same time the absorption of toxins from the wound-surface is diminished. Although the antiseptic power of glycerin in itself is slight, its mediate effect in this direction still is beneficial, the more so, since there is no risk in its use, as shown by the fact that it can be given in very large doses internally without any unpleasant by-effects. A further advantage in its use as a dressing is that it does not adhere to the wound and can be easily removed.

SODIUM CHLORIDE IN HEMOPTYSIS

The popular remedy, table salt in teaspoonful doses given dry upon the tongue, should not be forgotten in hemoptysis, in the absence of the more effective modern measures. The mode of its action is not

clear, but its effect may be due to the stimulating influence upon the mucous membrane of the digestive organs, thus causing a reflex contraction of the pulmonary vessels.—Israel Bram, M. D., in *Merck's Archives*, 1912, Jan., p. 5.

CARBOLIC ACID IN ERYSIPELAS

Dr. S. Douglas Follwell writes, in *The Medical Summary*, about his method of treating erysipelas, the same consisting in applying 98-percent carbolic acid, and neutralizing this almost immediately after with alcohol. Dr. Follwell first saw this method of treatment applied by Dr. Powell at the New York Postgraduate Hospital. He has tried it in numerous cases and with excellent results. Decided improvement usually follows at once. Calomel and laxative salines are given internally to clean out the intestinal canal.

MAGNESIUM SULPHATE SOLUTION FOR LOCAL APPLICATIONS

Dr. J. A. Burnett says, in *The Medical Summary* for October (1911), that experiments have been performed to determine the solubility of magnesium sulphate in glycerin, and it has been found that 1 ounce (avoirdupois) of glycerin will dissolve 155 grains of magnesium sulphate [crystal?]. According to this, he says, 1 pound (7000 grains) of glycerin would dissolve 2480 grains (or 5 1-6 ounces) of magnesium sulphate. Thus 1 ounce of the salt dissolved in 1 pint of glycerin could be used as a local application in place of the aqueous solution. Possibly, if this combination were used very freely and over a sufficient surface it would abstract enough water to control fever-temperature, and might take the place of diaphoretics, antipyretics and vapor-baths.

THE DIET IN TYPHOID FEVER

Dr. L. R. Raiford (*The Virginia Medical Semi-Monthly*) does not hesitate, in average cases of typhoid fever, to give such diet as soft-boiled eggs, strained oatmeal, milk custard, gelatin, baked or stewed apples, etc., in small quantities, throughout the attack; then, as soon as the fever subsides, the patient is ready for and can partake of a more liberal diet with perfect safety. The advantages of such a regimen are, he believes, a less emaciated and more satisfied patient, and also a shorter convalescence, with less tendency to relapse.

This is sound practice, and a like course of dietary treatment has given us very satisfactory results. Of course, as the doctor points out, there are cases where such a diet would not be safe; but the careful physician will always be able to decide where he may give a more generous diet than was formerly permitted. In our opinion sweet milk should be particularly avoided as being harmful, at least *in posse* if not always *in esse*.

NATURE OF GASTRIC COUGH

Discussions of gastric cough are infrequent. Some authors even deny its existence. Dr. Carry has an article on this subject in the *Journal des Médécine Praticiens de Lyon* for November 15, 1910. He designates by the term *toux gastrique* (i. e. gastric cough) a special cough caused by an autointoxication due to the elimination by the bronchial mucosa of toxic products of digestive origin, especially of the stomach. He reports a number of clinical cases going to support his pathogenic interpretation, which is quite different from that usually given. To overcome the painful symptoms of this disease, the author insists upon close attention being given to the alimentary regimen, and particularly upon reduction of the evening meal.—*La Province Médicale*, 1911, No. 3.

IDIOSYNCRASY TO COALTAR PRODUCTS

Dr. Redmond Roche contributes the following to *The British Medical Journal* of March 26, 1910:

"A male patient, aged 33, a *bon viveur*, underwent at my hands three minor operations in the past two years; in each case chloroform was administered. Within twenty-four hours in each instance jaundice supervened; bile appeared in the urine and

stained the conjunctivæ. Ultimately the jaundice cleared up completely. In this case the same individual presented chloroform jaundice three times."

CAMPHORATED OIL IN DIFFUSE PURULENT PERITONITIS

Dr. George Hirschel (*Muench. Med. Woch.*, 1910, No. 15) treated nine cases of severe, diffuse, purulent peritonitis by opening the abdomen, removing the pus, and extirpating the perforated appendix. He then poured from 100 to 300 Grams of warm, sterile, 1-percent camphorated oil into the abdominal cavity and closed the wound. Although all nine patients were considered as hopeless, five of them recovered. Since this communication of Hirschel, animal experiments conducted by O. Burckhardt showed that white mice injected with camphorated oil are not injured by injections of streptococcus cultures, while the control-animals, which had not received the camphorated oil injections, perished promptly.

CALCIUM TREATMENT OF TWITCHING EYELIDS

The evil consequences of calcium starvation upon the organism are not alone nutritional, but may also lead to distressing nervous disturbances. An interesting case in illustration was reported to *The Medical Council* for April, 1911. Prompted by the theory of Loeb, that calcium has the power to control muscular contractions, Dr. Theo. C. Burnett, of Berkeley, California, treated a case of blepharospasm with calcium chloride.

The patient was a college student, and had suffered from rhythmical contractions for months. After about two weeks of calcium therapy the drug was discontinued on account of its bad taste and irritant action. However, improvement had begun early and it continued until the twitching completely ceased, a few days after treatment was discontinued. At the time of reporting the case the student had been free from twitchings for about five months, and in spite of having continued her studies and, what is more, passed through the ordeal of the midterm examinations. In every other particular, including refraction, the eyes were normal. The author admits that a single case proves but little and so calls upon other practitioners to try this treatment in similar cases, reporting results.

It is to be remembered that calcium is but slowly absorbed and as slowly eliminated, hence the possibility of continued action after administration was stopped. Furthermore, though theoretically useless, yet in practice the lactate is the best calcium salt for internal administration. It oxidizes so readily that its effect in throwing the calcium out of commission is probably thus negatived. A more agreeable calcium preparation, for clinical use, than we now possess is very desirable; for this substance is the ideal remedy for spasmodic affections of the type mentioned.

Calcium has been successfully employed in tetany, both of the spontaneous and postoperative variety.

A SIMPLE METHOD OF GIVING SALT SOLUTION PER RECTUM

"Here is what the Doctors Mayo have found to be the most satisfactory method of giving normal salt solution continuously per rectum. An ordinary glass irrigator is fastened one foot above the patient's mattress. A medium-sized soft-rubber tube is connected to the nozzle and introduced three to five inches into the rectum. Three pints of moderately warm normal salt solution is poured into the irrigator-jar. It is not necessary to use a thermometer to regulate the temperature of the solution. The nurse adds more warm solution as necessary, testing the temperature of the solution with her fingers. The solution flows slowly into the rectum and is absorbed. Should the rectum become distended with fluid, it produces a pressure on the solution and it will flow back into the jar.

"They have an attic full of fancy appliances for giving salt solution per rectum that they have discarded."

The foregoing is quoted from *The St. Louis Medical Review*, December, 1911.

Stomatological Considerations

IN the normal state we can find in the mouth a vast number of microbes. More than a hundred different species of these infinitesimally minute beings have been counted in the mouth. The germs of pneumonia live there habitually and those of diphtheria are met with there frequently and they persist there a long time after the patient's recovery. The germs of cerebrospinal meningitis also have been found in the mouth of the patient many weeks after recovery from the disease.

These microbes live in the mouth of a person in good health in the condition of messmates or parasites and nourish themselves with alimentary substances which they find ready at hand. They remain in perfect accord with us and do not disquiet us, because, in the first place, their virulence is attenuated and their number is inconsiderable. And, in the second place, because, when the gums are in good condition and the organism is in full vitality, enjoying its full power of resistance, the gums then defend themselves easily against attacks made on them. But as soon as the microbes become more numerous, more virulent, and when the organism, too, becomes enfeebled and the equilibrium of health is broken, then the conditions of caries are realized, conditions which may develop various diseases.

What are the conditions that are able to augment the virulence of the offending microbes?

Carious teeth, infected roots, constitute, as we have already intimated, the fundamental places where food ferments and where microbes are cultivated. And these microbic agents, some of which are producers of acid, by their multiplying alter the buccal secretions. Although this change is of little importance when only one tooth is affected, it becomes very materially felt when a great number of teeth become thus affected, for it results in more and more caries and in inflammation of the gums.

Moreover, since the stumps are pointed and sharp, they penetrate the gums during the movements of mastication, forming wounds into which microbes and septic products are introduced.

The deposits of tartar which accumulate on the teeth are another cause of mouth infection and inflammation of the gums. This tartar, which is a precipitation of the phosphates and carbonates of calcium and of magnesium contained in the saliva, forms a good hiding place for these most virulent microbic agents, of which a quantity so small that it can be put on the point of a pin, if pricked into the arm or thigh, is enough to produce a diffused abscess. This fact has long since been known to the legionaries and marines, who misused it to make themselves sick and unfit for service.

The precipitation of tartar occurs under the influence of certain microbes, and the most careful brushing of the teeth is not always sufficient to reach the hiding place of this process. When a person has an affected tooth which is painful in mastication he instinctively stops to use that part of the maxilla, and the result is an abundant formation of tartar. The removal of the tartar is indicated as soon as it is formed.

The tartar is deposited on the neck of the tooth and there forms a little collar

around it, the crest of which penetrates more and more deeply between the gum and the tooth and there acts as a foreign body, irritating and infecting, then inflaming the alveolodental ligament, and in time producing the denudation of the tooth, the destruction of the ligament, and finally the loosening and falling out of the tooth. The inflammation may even gain in depth and reach the periosteum and the lymphatics. The inflamed gums and the inflamed sides of the alveoli continually pour out into the mouth inflammatory liquids and pus, which increase the septicity of the buccal secretion, and, being absorbed, at last derange the stomach and poison the economy. Persons whose inflamed gums bleed on the slightest friction make use of only soft and hence insufficient brushes, and in them the tartar deposits increase continuously.

The knowledge of this bad influence of the tartar deposits upon the hygienic condition of the mouth is as yet not sufficiently appreciated by the public, who are frequently imbued with the idea that the removal of the tartar denudes the teeth. But it is not the removal of the tartar which produces the bad results, but the very tartar itself, as we have already explained.

Anyone who will think deeply of the important part which the mouth plays in the bodily economy must be led to regard the hygiene of the mouth as of extreme importance. It is by the way of the mouth that the germs of tuberculosis, typhoid fever, diphtheria, etc., pass along until they localize in the lungs, in Peyers' patches, in the lymphatic ganglion, etc. Let us examine what takes place, for instance, in the subject of tuberculosis.

It has long been recognized, after minute examination of patients who died in hospitals, that 95 percent of all human beings presented tuberculous lesions.

Thanks to tuberculin, we are able to estimate that from the age of six months to the age of fourteen years the organization becomes so impregnated with tuberculosis that 24 percent and more of all those arriving at puberty have it. The greater proportion of these become cured, but 12 percent become tuberculous.

Here, now, is the question which interests us at this time. It is said, at present, that the inoculation takes place by way of the digestive tract; that before the bacilli locate themselves in the lungs, in the intestines, etc., they pass and sojourn in the vestibule of the mouth. If, then, when they penetrate there they find a healthy territory, one that is microbicidic, gums in good condition, the saliva alkaline, the bacilli will, in this, the first, stage of their journey, already become attenuated in their virulence. Then they will arrive in the intestines in considerably lessened numbers and there will be no longer much to fear, since healthy teeth and gums in good condition are the very conditions of good health. Then, too, when bacilli are introduced into such an organism they will find phagocytes in full vitality, cells that are apt to take up the fight against them successfully and capable of enveloping them.

But if, on the contrary, the bacilli, on coming into the mouth, find an acid, septic territory; teeth carious and holding a veritable culture-medium; gums irritated, bleeding, ulcerated, forming sores ready to absorb; then the tubercle bacilli find themselves in conditions favorable for development. They will then arrive at the different organs in far greater numbers and with an exalted virulence and in conditions to do so much the greater damage to the organism in which they implant themselves and gain the mastery over it. Thus, a bad condition of the mouth, as a consequence of which the body is insufficiently nourished, often has the effect of weakening the organism.

These considerations assume a still greater importance when we remember what has already been said, namely, that 24 percent of infants become inoculated with tubercle bacilli, which attack the organism at an age when it has to satisfy the multiple demands of the developing period and which otherwise is still in a state of imperfect resistance.

Carious teeth and infected roots frequently give rise to abscesses, the consequences of which may be very grave. Medical literature for some years past has become enriched by numerous articles dis-

cussing grave diffuse abscesses of bucco-dental origin, and a certain number of cases terminating fatally were mentioned, which cases had started from carious teeth. The mouth is in the neighborhood of very important organs, and diffuse phlegmons in it are of a greater importance than elsewhere. One writer, some years ago, published the case of an exhausted, overworked patient who had his jaw infected from a carious tooth, and who became feverish, had chills, and fell into a state of pronounced cachexia.

"Many persons," says Dr. Catz, "despise the dentist when they do not suffer, and this accounts for the regrettable fact that we so frequently meet with cases of pyorrhea, where the victims suck pus from their gums, continually, for many years, when they would not neglect the treatment of a suppuration in an arm or thigh."—Dr. Boitelle, in *La Dosimétrie*, for December, 1911.

MEDICAL MISSIONS OF GERMANY

Results of the activity of German medical missions were given in detailed statistics, at the Dresden Hygienic Exposition, by the German Evangelical missionary societies. These maintain 37 mission hospitals, 76 polyclinics, and 20 leprosy asylums. In these are at work 18 native physicians, 40 medically schooled missionaries (German missionary physicians), and 198 woman nurses ("krankenschwestern"). The number of patients treated last year was 304,998, and added to this were 1844 lepers. In German colonies, including Kiautchow, there are stationed 8 missionary physicians; among them 4 are German, and 25 woman nurses in 8 hospitals, 29 polyclinics and 8 leper asylums. The number of patients treated was 57,700. Add to these 500 lepers. Considering that these numbers and establishments are but a young branch of missions, then these are very gratifying results, worthy of acknowledgment.

English missions are certainly far ahead of us. A certain great English society maintains almost five times as many physicians as we do, and its income amounts to eight times as much as the income of three of our largest German medical missionary unions. This shows how greatly they esteem missions and missionary physicians in England, which can look back on the experience in colonial work a hundred and more years. Germany can do no better than pattern itself zealously after England in its missions. The understanding of medical missions should be inculcated in ever-increased circles in Germany. Thanks to the untiring labors of the friends of missions, the interest in them has become popular in many places, so that the youngest of the three German missionary unions, viz., the one of Berlin, which supports the newly established station of Dr. Ochme in Kidergalo, East Africa, has now a yearly income of 18,916 marks (about $4729).—*Der Geisteskampf*, 1912, No. 1.

MEASLES CONTAGIOUS BEFORE ERUPTION

Ch. Nicoli and E. Conseil have confirmed the classic idea of the contagiousness of measles before their eruption, i. e., before they can be diagnosed generally.

At a meeting of the Académie des Sciences they related their experiment with a hooded monkey, which they inoculated with measles. The monkey's blood became virulent twenty-four hours before the eruption occurred.—*Gazette des Hopitaux*, 1912, No. 1.

INFLUENCE OF PLACENTAL EXTRACT ON MILK SECRETION

Introducing a small catheter into the milk-ducts of a goat's mammary gland gives rise to a continuous flow of milk and thus enables us to measure the quantity secreted in a given unit of time. By this method the following facts were demonstrated:

Intravenous injection of freshly prepared placental extract increases the secretion of milk.

Placental extract, when allowed to stand for some time or when subjected for an hour to a temperature of 65° C. (149° F.), loses this action. This action of increasing the secretion of milk is organically specific to the placenta.

Large doses of the placental extract have other effects also, besides the milk increase, especially increasing blood coagulability, with consequent great damage to the circulation and resultant death of the animal experimented upon.—R. Lederer and E. Pribram, in *Wiener Mediz. Wochenschr.*, 1911, col. 2260.

AN ANOMALOUS STOMACH

Desternes presented, by means of radiography, to the Societé de Médecine de Paris, at its last December meeting, a man who was able at will to put into his stomach an enormous quantity of liquids and then to empty it out. The organ adapted itself perfectly to its contents; yet the stomach was of normal shape. Its tonicity and elasticity were remarkable as to the extra power of its musculature anteriorly of the pylorus, while possessing also a very high degree of antiperistaltic contractility, both spontaneous and voluntary.—*Gazette des Hopitaux*, 1912, p. 8.

FIXATION ABSCESS IN TYPHOID FEVER

Dr. Lesieur gave a very detailed study of the subject named in the title, before the Societé des Sciences Médicales de Lyon. He arrived at the following conclusions: In the course of a severe typhoid fever with bronchopneumonia or septicopyemia complications, the method of Fochier, of fixing an artificial abscess, may be very useful. This method does not seem to act by increasing the number of leukocytes, especially the polynuclear ones, in the general circulation of the blood. The contrary is very likely to be the case, namely, that Fochier's method acts by fixing the poisons which the dead red corpuscles and leukocytes carry, and the Eberth bacilli, which can often be found alive in the fixed abscess.

The fixation-abscess merits well its name, for it it a veritable trap of microbes. The absorption of the destroyed bacillary bodies in the fixed abscess (a kind of a laboratory of antibodies) may explain the augmentation of bactericidal power of the blood which it may produce. Fochier's method seems to act also as a kind of a true autoimmunization.—*La Province Médicale*, Jan., 1912, p. 5.

TOXICITY OF AMANITA PHALLOIDES

Radais and Sartory spoke, before the Académie des Sciences, in December, 1911, on the subject here in title. They affirmed that the amanita phalloides retains its toxic power after being submitted to a temperature beyond the boiling point of water. Its toxicity does not become diminished even after a year in the dried state, and still persists after six years. They further said that the poison is tenaciously retained in fungous tissue even after being boiled in water.

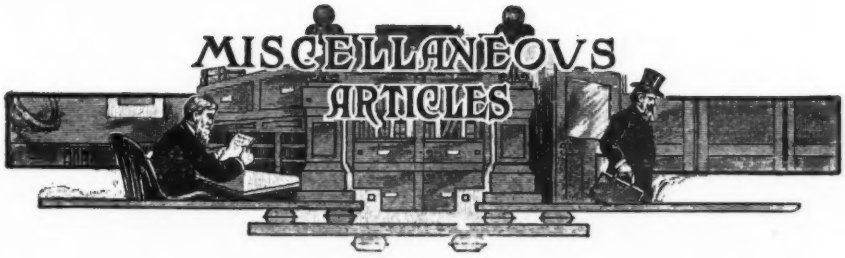
It is, therefore, imprudent to disseminate among the public the false notion that all toxic fungi may be rendered harmless by being treated with boiling water followed by a washing in cold water.—*Gazette des Hopitaux*, 1912, p. 6.

PREGNANCY SERUM AGAINST VOMITING IN PREGNANCY

Lorier reported to the Académie de Médécine (July 25, 1911) a case of uncontrollable vomiting in pregnancy which brought on marked cachexia. This woman received two injections, hypodermically, of 12 and two days later of 15 cubic centimeters of serum from a healthy pregnant woman, whereupon the troublesome vomiting rapidly ceased.—*Paris Médical*, August 5, 1911.

ANATOMIC DEMONSTRATION OF THE ACTION OF RADIUM, IN CANCER OF THE UTERUS

Rubens-Duval and Cheron at the July 28th meeting of the *Societe Medicale Des Hopitaux* (Medical Society of the Hospitals) of Paris, referred to nine histologic examinations of inoperable cancer of the neck of the uterus which had been treated with radium. In some of these cases the authors were able to obtain the complete local destruction of the epitheliomatous cells, and in other cases the inoperable cancer became operable after a preliminary treatment with radium. —*Paris Medical*, August 12, 1911.



The Diagnosis and Treatment of Cerebrospinal Meningitis

THE present widespread epidemic of cerebrospinal meningitis, especially in the southwestern portion of the United States, makes a discussion of the treatment of this disease timely. In the preparation of this brief account a review by Past-Assistant Surgeon W. H. Frost of the Public Health and Marine Hospital Service (*Public Health Reports*, Jan. 26, 1912) has been freely drawn upon.

Diagnosis.—For the clinical diagnosis of the cerebrospinal meningitis we may refer to the textbooks on the subject, except that we will mention a new diagnostic sign, recently called attention to by Brudzinski, which is positive in more than ninety percent of all cases and therefore of greater value than Kernig's and Babinski's reflexes. Brudzinski's neck-sign consists in passive flexion of the head forward, one hand being pressed on the chest. In case meningitis is present this will cause flexion of the legs at the hips and knees and marked flexion of the legs on the pelvis.

While clinically the differentiation of cerebrospinal meningitis from other forms of meningeal inflammation may be very difficult, it can be made with reasonable certainty by bacteriologic examination. The meningococcus which is responsible for the disease may be isolated from the cerebrospinal fluid, the blood or the nasopharyngeal secretions of the patients, and, after death, from the meningeal exudate and sometimes from the blood and various viscera. For practical purposes the examination of the cerebrospinal fluid is most important. It may be examined directly under the microscope or after culturing on suitable media.

Treatment.—For the general treatment, Candler recommends flushing the bowels, and the wet-pack; nuclein solution in doses of 20 drops every four hours, and calcium sulphide, 1-3 grain, with echinacea, 1 grain, and gelseminine, 1-500 grain, every thirty minutes for four doses, then hourly until the temperature falls. The action of the wet-pack may be promoted by pilocarpine; the fever may, in sthenic cases, be controlled with aconitine, and veratrine given alternately; while in asthenic cases gelseminine and cicutine hydrobromide promise better results.

The use of urotropin (hexamethylamine) in full doses, as advocated by Crowe, is to be recommended highly as an adjunct to other methods of treatment. Achilles Rose praises the continuous warm water bath, while Professor Aufrecht and others saw favorable results from hot baths (temperature of 104° F., duration ten minutes.)

One of the most important therapeutic procedures, which also supplies material for bacteriologic diagnosis, is the abstraction of the excess of cerebrospinal fluid by means of lumbar puncture, which causes the coma to disappear and alleviates the distressing headache by relieving the intradural pressure.

Serum Treatment.—In the most recent time a serum treatment of cerebrospinal meningitis has been perfected, especially through investigations in the Rockefeller Institute, which has become established as

a therapeutic measure of such well-proven efficacy that its use becomes imperative. This was illustrated forcibly in the epidemic in Texas just coming under control, in which the Flexner serum was largely employed. According to press dispatches, whereas the death-rate from cerebrospinal meningitis was 90 percent before the discovery of the serum, it is believed that the rate in Dallas, Texas, for instance, will be found to be not more than 15 percent when the epidemic is over, as a result of the use of the serum. In fact, a Galveston, Texas, paper of January 12 states that up to that date the death-rate at the meningitis hospital in Dallas, where Dr. Sophian, of the Rockefeller Institute, administers the Flexner serum, is 0.094 per cent.

On the other hand, a Dallas clipping of January 21 attributes the statement to the city health officer, Dr. A. W. Nash, that the mortality at the hospital has been about 25 percent, but that in most of the cases in which death ensued the victims had come to the hospital in a moribund condition or after a drive of from twelve to twenty-five miles over rough country roads. According to the newspaper reports Dr. Sophian declared that the mortality in this epidemic was well below that of any previous occasion in his experience.

The antimeningococcus serum, which is obtained from horses immunized against the meningococcus by repeated, long-continued injections of live cultures, of killed cultures, or the disintergration products (autolysates) of cultures, chiefly acts, unlike the antitoxic serum used in diphtheria, for the destruction of the pathogenic organisms themselves. The action of this serum is a threefold one; namely, to destroy the meningococci, on the one hand, by bacteriolysis, and, on the other, by encouraging phagocytosis; and, to neutralize the poisons resulting from their disintegration (endotoxins).

These processes, it should be remembered, are similar to those by which the human body itself combats meningococcus infection; in fact, the biologic treatment of all bacterial diseases attempts to imitate and strengthen the "natural" resistance of the organism to bacterial invasions and must, therefore, be designated as the "natural" treatment.

Experience has shown that the best results from this serum treatment can be obtained only be repeated injections. It is therefore recommended to give at least three or four injections of full doses of serum at intervals of twenty-four hours, and thereafter to be guided by the clinical signs and changes in the cerebrospinal fluid. Ordinarily, after three or four daily injections, the temperature will have fallen, the rigidity will have relaxed, and the mental condition of the patient markedly improved.

However, too much emphasis cannot be laid upon the point that the treatment of cerebrospinal meningitis must be vigorous, with full doses, repeated until a cure is effected. A large part of the failures to get satisfactory results have been from ignorance or else from neglect of this important point, owing to the tendency to let well enough alone and to wait for the full effect of each dose before following it up with another.

While the administration of the serum frequently is followed by a reaction, fatal accidents due to this treatment have been comparatively rare. The rise in temperature is largely due to the liberation of the bacterial endotoxins which are set free during the destruction of the meningococci. These endotoxins themselves, as just remarked, are influenced by the serum and are neutralized.

The results of the serum treatment as reported both in European and American literature, are excellent and the mortality of the disease has been greatly reduced. The most competent observers agree: that the serum, when promptly and properly used, effects a very substantial reduction in mortality, shortens the course of the disease, and reduces the proportion of disastrous sequelæ; that it must be used freely, i. e., repeated daily for at least three days in most cases, and as much longer as may be found necessary from observation of clinical signs and examinations of cerebrospinal fluid; that the best results can be obtained only by persons expert in the technic and principles of the treatment

and conversant with the clinical aspects of the disease.

SYMPOSIUM NUMBER ON "DISEASES OF THE DIGESTIVE TRACT"

The Interstate Medical Journal of St. Louis announces the publication of a symposium number on "Diseases of the Digestive Tract," this to appear in March. This number will contain original articles by Dr. George Herschell, Prof. H. Strauss, Dr. Ludwig Kast, Dr. H. W. Soper, Dr. J. W. Weinstein, Dr. John C. Hemmeter, Dr. Jacob Kaufmann, Dr. C. C. Bass, and Dr. Wm. Gerry Morgan.

Among the subjects to be discussed are: Points in the diagnosis and nonsurgical treatment of duodenal ulcer; proctoscopy and sigmoidoscopy; the x-ray in the diagnosis of gastrointestinal diseases; diagnostic value of the test for occult blood in the stomach-contents and feces; the diagnosis of cancer of the stomach; splanchnoptosis; enteroptosis; some general remarks on the treatment of gastric diseases; intestinal parasites; duodenal alimentation.

This issue promises to be one of exceeding value to the general practitioner.

VACCINES ARE NOT DANGEROUS IN EXPERT HANDS

Recently I had occasion to note, in the book-review department of the December number of your most excellent journal, CLINICAL MEDICINE, Dec. 1911, p. 1340), some statements regarding the dangers of vaccine therapy, to which I wish to take exception.

You write: "Vaccines have a greater possibility for harm than chloroform, morphine, strychnine, and other drugs of the kind. They are not dangerous in the hands of men who have studied their actions and the principles underlying their application, because then their administration is controlled."

While I have every respect for the abilities of the editor, and, too, for his clinical experiences, I cannot but differ with him materially in this respect. To put it very plainly, *vaccines are not dangerous.* This statement is made with all due deference to the feelings of many whose articles or statements I have read or heard. I will qualify this statement by adding "if properly used." It must be evident that any agent, to be therapeutically valuable, must carry with it possibilities of harm if its use is overdone, just as too much bread or too much butter will make a man sick.

It is a fact that there is much less possibility for harm in the bacterial vaccines than in any drug in the materia medica, and statements calculated to scare the profession are unfortunate, because vaccine therapy contains within it such tremendous possibilities for good. No step has been made in therapeutics during the past ten years that has been anything like as important as the work first done by Wright—no, not even salvarsan.

The only way in which I can reconcile your statements is, to suppose that you must be considering tuberculin as a vaccine, and, of course, as tuberculin is a toxic product and not really a vaccine at all (which latter are given in cases where the patient is already fairly saturated with similar toxins) the possibilities for danger from its careless or unwise administration are very great.

Fortunately, the literature on vaccine therapy is becoming quite voluminous and covers practically every phase of this broad subject. I have collected a few excerpts from recent literature, which may serve to prove my contention, that vaccines, when used with the care that is possible by a physician who knows enough to know how to use drugs (even though he may know nothing about vaccine therapy), are *not dangerous.*

Doctors Williams, Cragin, and Newell ("Transactions of the Congress of American Physicians, Vol. 7, 1910, p. 160) say: "As the ordinary localized puerperal infections, irrespective of the nature of the offending bacteria, tend to spontaneous cure, the field for vaccine therapy is practically limited to acute general infections, where it unfortunately appears to be of little value, and the most that can be said from the reports thus far available is, that *its employment does no harm.*"

Dr. Henry O. Riek concludes: "Fifthly, that, if used with reasonable care as to dosage, and especially as to asepsis, *vaccine therapy is a harmless measure* and carries with it practically no serious risks."

Drs. J. B. Deaver, J. C. DaCosta, and D. B. Pfeiffer make this statement: "As a contraindication to vaccine treatment conducted in this manner, we can only mention one, namely, overwhelming sepsis. It is not rational to expect help in such a condition, and from the nature of the case it is possible to do harm by adding more toxin, though we have *not seen an instance of this clinically*."

Dr. W. R. Allen, London ("Vaccine Therapy," 3rd edition, p. 117), in referring to the treatment of pneumonia with vaccines, says, among other things: "A weak, irregular, very rapid pulse, enfeebled constitution, low muttering delirium, dry, furred tongue, and sordes about the mouth are, of course, unfavorable signs; yet so marked has been the improvement, even after one injection, in two cases of this type, that no case is to be looked upon as hopeless."

Dr. John H. Mudgett (*Medical Council*, Jan., 1912, p. 7) writes: "Finally, I desire to again emphasize the ease and facility with which bacterial vaccines may be used by the general practitioner; and also wish to state, from my own large experience and from information obtained from reading, my opinion, that the *use of bacterial vaccines is as safe as the employment of any of the potent drugs* of the materia medica. They should be used by every practitioner of medicine as an accessory to his other methods of treatment."

Dr. J. G. Collison, discussing typhoid fever (*Post-Graduate*, July, 1911), declares: "When given in therapeutic doses, such stock vaccines *are without injurious effect*, and do not interfere with other treatment."

Dr. R. H. Dennet (*Post-Graduate*, July, 1911) in referring to a case of typhoid fever, says: "The case was a very desperate one, but after the use of the vaccine went on to a complete recovery. *The large dose this patient received certainly did no harm.*"

Dr. James M. Phalen (*Journal of the American Medical Association*, Jan. 6, 1912, p. 11), after reviewing the literature on the subject of typhoid-fever treatment with vaccines, says: "All agree, however, that even in cases in which it causes no improvement, it *has done no harm*."

An interesting experience is related by Dr. Timothy Leary, of Boston (*Boston Medical & Surgical Journal*, Oct., 1910), which is quoted in his own words: "In general infections vaccines are harmless. This was indicated in a case in which, through error, 10 Cc. of staphylococcus pyogenes aureus vaccine containing 10,000,000,000 organisms were injected at one time, as an initial dose. No harm resulted. In a second case the same dose produced a temporary collapse, with prompt response to heat and stimulation."

To close: Bacterial vaccines are not dangerous—if rightly used. The average physician is passing by a splendid thing if he is not using these remedies as a routine. The knowledge required to use vaccines effectively is not hard to obtain, nor does it require more than a few minutes—perhaps an hour or so—and if there *is* danger, it lies more likely in *not* using bacterial vaccines when they are indicated.

HENRY R. HARROWER

Chicago, Ill.

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[Bless your dear heart, Doctor, I don't disagree with you at all—I agree with you! All the arguments you submit favorable to bacterin therapy are good, and I say "Amen" to every one of them. CLINICAL MEDICINE has printed so many things favorable to vaccines—and in behalf of serums, too, for that matter—that it doesn't really seem necessary to add another word. Biologic therapy—organotherapy—call it what you like—is growing in interest every day, and I am urging all my medical friends to become better acquainted with this field. Now and then I may add a word of warning, for with every new thing there is always the danger that the too enthusiastic "new-beginner" may lose his head a little—and need a gentle tightening of the bridle rein. Bacterins are not cure-alls (as it seems to be the tendency to make them in some quarters) and they must be carefully made, used just

when and where indicated, and in association with drugs—not to replace them.

But now I stop for breath—and to let the review editor say a word, for he it was who wrote the sentence to which Dr. Harrower has objected so ably and energetically:

"Dr. Harrower's defense of vaccines against my remarks to which he refers looks to me like a tweedle-dum and tweedle-dee discussion. The Doctor quotes me correctly as having said: 'They [namely, vaccines] are not dangerous in the hands of men who have studied their action—because then their administration is controlled,' and then he says, in the next paragraph, 'Vaccines are not dangerous—if properly used.' It hardly appears necessary to discuss Dr. Harrower's communication further, beyond saying that I am fully convinced of the importance, value, and possibilities for good of vaccines—*if properly used.*—REVIEW EDITOR."

May I add just one word? It is this—*know the source of your bacterin.* There is no product in which strict scientific care is more essential, since the defective sterilization of this substance would mean the injection into the body of living disease germs. Especially is this danger to be considered in the production of autogenous vaccines. The vaccine is a good product, often useful, rarely dangerous, *provided it is made right.*—ED.]

ARE ALL MEN KNOWN BY THEIR DEEDS?

Muffled cheers rang through the crowded court room and men and women fought to get near the man who had won life and liberty for another. The jury had just brought in a verdict of "Not Guilty" and he who had sat for days within the shadow of the chair was free.

It had been a hard-fought case. That from the start looked bad for the prisoner. Toward the last his nerve had broken and a verdict of guilty in some degree had been expected by all familiar with the case.

The day before, the attorney in charge of the defense had begun his closing arguments. At first he confined himself to a review of the details and facts of the case, finally launching into one of the most powerful pleas ever made before any court for the life of a fellow man. Men bowed their heads and there were tears in every eye. Women became hysterical and at the moment of his final appeal to the jury there could be heard sobs from every part of the room.

He had won—the jury had returned with a verdict of "not guilty" and now the public were eager to pay homage to this, their newest hero. The morning papers from coast to coast carried the story on their front pages. Some had a picture of the prisoner, the jury or courthouse, but all had a likeness of the attorney. His plea was printed in full and pronounced a masterpiece, one of the greatest in the history of American courts. His fee for this one case was estimated at $50,000 to $100,000 and he was hailed as the coming leader among the country's criminal lawyers.

And so it is that some men, some times, by their deeds become famous in a single day. Perhaps after all the prisoner was guilty and deserved to pay the penalty. Be that as it may, this man by his power of argument and irresistible plea had won for the prisoner Freedom, and for himself, Honor, Glory and Wealth.

And that night in a miserable attic, in the very heart of the city's tenements, another man was fighting, not for one life, but for two. He was a doctor, brother to the lawyer whose fame was even then speeding over the wires to every city in the land. On the bundle of rags and straw that served as a bed, lay a woman dying in her effort to give to the world a new life. Poverty and hunger had unfitted her for the task and at his first glance the doctor saw that life was fast slipping away. Then he chanced to look into the eyes of the husband and seeing love there he took off his coat and began a fight against death.

All night he fought and when he had laid the tiny mite at its mother's breast he felt more than ever the need to win. His fight was a quiet yet terrible one. The only spectator was the husband whose eyes followed his every movement.

As the first rays of the morning sun showed over the housetops he knew he had

won. Telling the husband of his victory he got into his coat, went quietly down the rickety stairs and hurried home to snatch a few hours' sleep before he should be called into his next fight.

All night he had fought, giving the best that was in him, and he had won. He had saved the one life, given to the world another—and what was his fee? How many newspapers printed his picture on their front pages, with a detailed account of the masterful manner in which he, alone, had snatched two precious lives from the very hands of death. As he came down from the attic, tired and almost overcome from the strain, how many men and women rushed to grasp his hand and congratulate him on his great victory?

The only thing that man has or ever will have as payment for that night's work is memory of the gratitude that shone in the husband's eyes when he told him they would live.

And so it is that I am tempted to ask: *Are all men known by their deeds?*

W. M. BURBANK.

Davenport, Ia.

RANDOM FIRE FROM A MEDICAL GUERILLA

Every profession has its fads which occupy most of the attention of its members. New fads succeed each other, and each in its turn is magnified in the mind of its adherents until all sense of proportion and balanced judgment is lost. Sometimes two or three fads occupy the field at once, and in such a case the profession is so intensely busied with the pursuit of useless details that its art as a whole suffers in consequence.

This is exactly the case with the medical profession at the present day. We have gone "daffy" over the "pathologic basis of disease," over surgery, and the invention of new synthetic drugs. Incidentally, we, as a nation, have gone money-mad and have intruded our greedy practices into our art, until the profession has become blinded to its fundamental principles and is thoroughly commercialized. The primal question, How shall we best cure the patient, in the shortest possible time, with the least amount of discomfort and expense to himself; or, if the cure is impossible, how can we best make him comfortable? has been neglected so long that we are actually beginning to doubt whether there is any efficacy in drugs, after all, and we are proud to call ourselves therapeutic nihilists.

There are known to the author only four systems of bodily healing, excluding surgery, that have enough of scientific or even empirical basis to warrant their being called systems, these being allopathy, homeopathy, eclecticism, and osteopathy. No practician adheres strictly to the tenets of his particular sect, but when occasion demands, doctors, according to circumstances, use whatever means seem to be suitable to the peculiar exigencies of the situation. This fact is proof positive that no one system of therapeutics is capable of grappling with the multitudinous problems of human physical suffering. Instead of denying this, we should seek to discover the limitations of each system. What these limitations are can never be settled by slander and mud-slinging.

Every founder of a medical sect, being weak and human, claims more for the efficacy of his principles than he can prove; in other words, he "bites off more than he can chew," as we are accustomed to saying. The conformists claim to stick to the tenets of the founder in spite of facts to the contrary. The destructive critics deride and finally quit the crowd entirely, to join some other new gang. Then the mud begins to fly.

Now, we can never tell who the man is who is destined to make a new discovery or to emphasize some half-learned and still-more forgotten truth. Hahnemann was not the proper man to make medical discoveries, so the medical men of Germany and the university professors thought, hence they refused to accept his findings. His followers do not put much money into the pockets of the organized drug trade, and so it bulldozes the "regular" profession into fighting homeopathy. Osteopathy was given a start by a man who doesn't remember to put on his necktie when he has his photograph taken for publication.

This galls some of the tony regulars and they have it in for him.

With all the money that is being spent in medical research, the writer knows of not a cent that has ever been used to settle the question as to the limitations of peculiar therapeutic doctrines. Why is it? The writer is of the opinion that the reason for hesitation on the part of science is simple, unadulterated cowardice. The advances in "regular" therapeutics of late have simply been in the direction of adopting homeopathic drugs and administering them in larger doses than Hahnemann did. And this statement applies to alkaloidalism, too. Of course, the "regulars" put their remedies and their administration "on a scientific basis," but they do not work any better on that account. In fact, they would get better results if they would still give the minute doses advised by Hahnemann.

Now, the writer has never yet seen a doctor who has given homeopathy a fair trial at the bedside without being convinced of its superiority in the treatment of certain ailments. Likewise osteopathy. A perusal of Hahnemann's "Organon" and of a calm, conservative book like Abram's "Spondylotherapy" must convince any fair-minded observer that these writers are entitled at least to a respectable hearing. If these men are crazy, it is a pity that some more of us can't be afflicted with similar systematized delusions. Our bedside practice ought at all times to be strictly empirical in the best sense. Doctoring solely according to symptoms without due attention to the underlying conditions tends to make a man a poor diagnostician. Basing treatment on objective symptoms alone tends to make a doctor a poor therapeutist, a therapeutic nihilist, in fact, and many times actually causes the death of the patient.

Open any regular "Practice of Medicine" and you will find the fundamental treatment of dysentery to consist of antiseptic colonic flushings, starch-water and laudanum injections, intestinal antiseptics, and dope to relieve the pain. But thousands of physicians, in spite of all the terrible "pathological basis" of the disease, the ulcers, infections, sloughs, hemorrhages, pain, mucus, and general discomfort, cure the remainder of their patients in short order with corrosive sublimate in doses of 1-100,000 of a grain or smaller by the mouth, and do it better than by any other method ever recommended. Don't be foolish and attribute this to the antiseptic action of the drug. You know it isn't so. That would be a "scientific basis," sure enough. This being the case, the fact ought to be accepted by the profession at large. But it isn't. It is laughed at, because it can't be explained.

Not any more can anyone tell me why the peculiar arrangement of carbon, nitrogen, oxygen and hydrogen which we call strychnine stimulates the heart, while a slightly different number and arrangement of the same atoms constituting what we call jervine depresses the heart. But simply on this account I do not feel called upon to embrace Christian science. But it is a fact, nevertheless, and we consider the matter scientifically proved. So is the fact about the beneficial effect of corrosive sublimate in many cases of dysentery. Another man says he can relieve the hellish pains of gallstone colic without the use of morphine. I can't. But if it is possible to do it by the use of calcarea carb. and sarsaparilla and do it safely, quickly, and without the use of a hypodermic syringe, I want to know the details of this method.

If our national medical organizations want to benefit humanity, why don't they settle these facts for us? Let some big hospital have its patients treated in alternate months by doctors of differing schools. When Dr. P. O'Tency is on duty let the other three fellows follow him around each day as he makes his rounds, talk over the cases with him, but let O'Tency do just as he pleases as regards treatment. Next month move up one and let Dr. R. Ubber, "a graduate of the original school at Kirksville, Missouri," calm the aching bellies into peace by manipulations alone. Have the other chaps watch him faithfully for the whole month, too. Dr. U. S. P. Galenic will be only too willing to show his benighted brethren the true principles of practice next month. Finally, Dr. D. O. Pem will lay a few patients to rest

in a manner that will at least have a "scientific and pathological basis," and he will doubtless confine himself to weapons mentioned in the National Formulary. Then publish a detailed account of the whole affair and let the profession at large draw its own conclusions. What do you think of the scheme, eh? Nothing but jealousy prevents such a trial in any large hospital, and if we as a profession are so damnably pig-headed and long-eared that no four of us can face the music for a few weeks, we'd better disband and go back to the farm.

Now, you may suspect that the writer of this article is a hardshell homeopath. But he isn't. He's a "regular," graduate of a good school, went to college before studying medicine, and has been practising seven years. I am not trying to boost or knock any one school, but simply to get at the facts and stop the fighting. We want to know the truth about displaced axes and atlases, intestinal antiseptics, hyoscine-morphine anesthesia, circumcision, the administration of internal remedies, and a host of other things. We've been reading the papers for a long time and without much satisfaction. My plan seems to be the only way left by which we can get at the facts. This experiment faithfully carried out in a dozen large hospitals would do more to solve the medical-education problem than a whole basketful of Flexner reports.

The writer has a pet theory that eventually all these little-understood empirical systems of practical therapeutics are going to be put on a genuine cold, scientific basis. And I mean by this a scientific basis that is strong enough to have a superstructure of logical deductions built upon it without itself tumbling down. All the truths of these little systems will be correlated in a very simple manner.

Now, the latest little fad in our profession is the opsonic index. This seems to be about as far removed from empirical homeopathic therapeutics as is the Goddess of Truth from the Ananias Club. And for this very reason it offers a wonderful chance for the proof of the close relationship between empiricism and science, if relation there be. Let Mr. Scientist determine the opsonic index of the patient and keep his mouth shut about his findings. Then let Mr. Homeopath administer the "indicated" remedy. Then tell us all whether the use of the indicated remedy in its high potency raises the opsonic index as satisfactorily as does the appropriate vaccine. A fair test, isn't it? And simple, too. Yet it would usher in a practical settlement of the whole controversy between homeopathy and allopathy.

The writer has one more pet theory, that in every ailment the resistance of all the individual cells of the body is lowered just as we know that of the white blood-corpuscles to be in the case of some infections. But at present we have no such startling proof of the fact as we have in the case of the germ-gorging phagocyte. The most likely explanation of the action of homeopathic potencies is that they change the opsonic index, so that the white blood-cells consume certain toxins that are being elaborated in the system. In such cases the chemical change in the individual cell defies analysis because of its small extent. So, why is it not possible that a high potency whose drug-content is so small that it cannot be determined may yet be great enough to accomplish the results which homeopathic therapeutists claim for it?

Right here I want to quote a bit from a scientific paper written by the eminent Dr. Alfred Russell Wallace, who wrote: "The whole history of science shows that whenever the educated and scientific men of the age have denied the facts of other investigators on *a priori* grounds of absurdity or impossibility, the deniers have always been wrong."

My last volley is the following question: "Suppose that whenever a human being was vaccinated against smallpox there was an average tax on the medical profession of one dollar, would the attitude of the scientific medical investigator be credited to the extent that it now is?"

EDWARD G. ROWLAND.

Evarts, Ky.

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[Let us lay aside our prejudices and seek the truth. Everyone who is really

big—can find something to admire in homeopathy, osteopathy and the rest; indeed these sects only exist because of the narrowness of our leaders, who are not receptive to "unofficial" ideas.

As to vaccination, the tax proposed might change the *opinions* of a few but it could not change the *facts*, upon which firm foundation it is established.—ED.]

THE SUCCESSFUL TREATMENT OF ASIATIC CHOLERA

In *The Lancet* for November 18, 1911, Major Rogers presents the results of his experience in the treatment of Asiatic cholera, in Calcutta and Italy.

Dr. Rogers found that, while temporary relief followed the hypodermic or intravenous injection of normal saline solution, this readily escaped again through the bowel —the collapse returning. Better results followed the use of a hypertonic solution, containing 120 grains of sodium chloride to the pint, or half more than the normal solution. Of this, four pints were injected intravenously, to replace the loss of fluid from the blood. This, in the collapsed stage, amounts to one-half or two-thirds of the entire fluid of the blood-serum, the salts being lost in even still greater degree.

By this means alone the death-rate in Calcutta was reduced, from an average of 60 percent, to, at present, 33 percent. Still, in the worst cases, the patient died of toxemia. It was found that the cholera toxins were readily destroyed by oxidizing agents; hence large doses of potassium permanganate were given, with the result of still further reducing the death-rate, namely, to about 23 percent. This in the case of the native patients. Of those seriously collapsed, the mortality was reduced from the former 90 percent, to an average of 32 percent.

For the Europeans, at Calcutta, the recovery, under this treatment, rose from 18.4 percent to between 50 and 60 percent. Dr. Rogers suggests that the hypertonic salt solution might be tried in infantile diarrheas, especially if the quantities given be regulated by estimations of the specific gravity of the blood by means of a glycerin and water solution.

Besides its influence in sedating excitement of the vagus terminations in choleraic maladies, there is another possible reason for the administration of atropine in full doses. I refer here to its power of actively stimulating the vasodilators, by which the blood is retained in the capillary system through the consequent increase in capillary attraction. This measure has proved so successful in the treatment of various forms of hemorrhage that it seems it might be of value in lessening choleraic disturbances. Taken in connection with the use of agents that, acting locally in the intestinal canal, serve to remedy matters there (whether it be the sulphocarbolates, which have proved so remarkably successful in choleraic maladies, or the permanganates, which are proving similarly valuable), the principle is the same.

Since Major Rogers' method has resulted in a very marked decrease of the mortality in this terrible disease, it is hoped that a recognition of the value of atropine may assist in saving some of those lives which are lost, despite the application of the two admirable remedies advocated by him.

THE MEDICAL PSYCHOTHERAPEUTIST VERSUS THE FAITH-HEALING QUACK

In the November issue of THE AMERICAN JOURNAL OF CLINICAL MEDICINE our attention is called to an editorial, written for *The Chicago American*, by Mrs Ella Wheeler Wilcox—as well as to the excellent reply to it in the same issue of the number. Both the editorial and the reply suggest some thoughts to me which I desire to express—thoughts that, I hope, come from an unbiased mind.

Mrs. Wilcox is defending the "new-thought movement," and in doing so is criticizing the medical profession, because, as she tells us, one of its members made a morphine habitué out of a neurotic woman, and another had a fatal accident from a slip of the knife. Physicians are human, and it is one of the characteristics of human nature to make mistakes. We know of no human being who can plead innocent to the charge. It is true, some mistakes are more serious in their results than others, but

whether serious or not, we all have made mistakes.

As we do not, or at any rate should not, see only the evil that is within man and close our eyes to the good qualities he possesses, I will ask Mrs. Wilcox to judge the medical profession (even as she herself teaches), not by the few isolated mistakes of the individual, but by the many good things accomplished by the body of our profession as a whole. We frankly acknowledge our mistakes, but at the same time we demand credit for the good we achieve. I, therefore, suggest to Mrs. Wilcox, and to all of her kith and kin, to look at the record of the medical profession for the last half century. If she has at heart the welfare of humanity, above the advancement of some one clique in it, as I am sure she has, it will do her good.

Here is a small part of what stands to our credit. Medicine in the last fifty years, for the first time in its existence, has become a science. (We are no longer groping in the dark.)

Medicine has been put on the basis of a science that, since the discovery of the pathogenic microbes, has made possible the cure and the prevention of many fatal diseases. A science that has given to humanity aseptic surgery, by and through virtue of which the surgeon is enabled to explore regions of the body hitherto undreamed of and thereby to save many lives. A science that has given to the world the antiseptic treatment of wounds, the life-saving quality of which is demonstrated by the statistics of recent wars. A science that has given us typhoid vaccination. (Compare the number of cases of typhoid fever and deaths in our army in Florida, during the late Spanish-American War, with our one case in the army in Texas this summer just past.) A science that has given to the children diphtheria antitoxin, which has reduced the fatality of a serious malady from thirty-five to now less than one percent, and which, by the way, is the most beautiful example of all of the part nature itself plays in the cure of disease. A science that has given us salvarsan, which we hope will blot out forever a malady that inflicts suffering not alone on the parent but on the offspring as well—the innocent as well as the guilty. (Possibly it was in reference to that disease, or to others of its kind, that we are told the sins of the father are visited on the children unto the third and fourth generation.) A science that, through our present-day methods of prevention, has made possible the building of the Panama Canal—an undertaking which, without the knowledge scientific medicine has furnished, would be absolutely impossible. Indeed, through our modern methods of treatment and prevention the lives saved are numbered in the millions.

Are we, then, to be condemned because of the few that unfortunatly have been lost through accident, by mistakes so few that possibly they could be counted on the fingers of your hand?

If Mrs. Wilcox will pause to think a moment, she will realize that anything worth while accomplished in medicine and surgery was perfected by the thought and labor of the scientific men of our profession, and I might remind her that in that special branch (i. e., mental medicine) in which she is interested, it has been the men of our profession—for instance, Freude and Jung of Europe and Prince in this country—who are responsible for its scientific application, and who, with their cooperating workers in the profession, have done more to put this discipline on a true and practical basis than all of the faith-healers combined since the beginning of time; and their name is legion.

So much for a reply to that part of Mrs. Wilcox's article, as, it seems to me, the laity should know. Now for the part or some of it that, in my opinion, the general practitioner should know, as was suggested by the answer to her article.

In the editorial comment we are told that: "It is true to say that the socalled mind-healing, faith-healing, Christian-science and other cures of the same kind produce admirable effects in diseases which have their seat in the brain;" and, further on, "that is to say, that they can cure a disease that is entirely mental and largely imaginary."

As to this, I do not believe there is such a thing as an imaginary disease. The symptoms of which the patient complains, if he

is not a true malingerer, are in themselves a manifestation of perverted function somewhere; and perversion is disease. It never occurred to me that one was so fond of pain or of any other disagreeable sensation as to imagine he had it. No, to the sufferers their symptoms are real, as real as is a dream which to the dreamer, while still sleeping, as real as is reality itself. Nor do I believe socalled mind-healing produces admirable effects—unless brought about in a scientific manner, for otherwise the effect is not permanent.

The socalled healer by faith, by whatever name known, bears the same relation to medical psychology that the quack bears to internal medicine—they both deceive. We all know the testimonials in the hands of patent-medicine concerns, written by the laity for their self-diagnosed ailments. We should not overlook the part that suggestion plays (as I have, somewhere, seen it expressed: the difference between suggestion, i. e., blind faith, and logical reasoning is the same as the difference there is between knocking at a front door and being admitted and that of slipping in, as a thief in the night, by the back window; for the latter, if the opportunity presents itself, will as quietly slip out again) or fail to remember the fact that the removing of a symptom is not always the curing of a disease. Through the influence of suggestion we may remove by a surgical operation the hysterical stiff joint—but I promise you, the woman will still possess her hysterical disposition, which will manifest itself in some other manner, possibly equally as distressing as that of which she was relieved.

Any practitioner knows—it is the personal experience of all of us—the influence of the mind over the body. The emotions that bring joy and hope to our minds bring with them strength and energy to our body. The emotions that bring sorrow and despair to our minds carry with them weakness and ill-being to our body; the one increasing the vital functions, the other decreasing them. But the hope brought through the faith-healer (the mental-medicine quack) is the hope brought to the mind of the patient by the reading of the label on the patent-medicine bottle—a weak prop that cannot stand a statement that will not bear investigation.

The barber no longer performs, in our stead, surgical operations, and surgery today is a true and accurate science. We may hope for the same wonderful advancement in the domain of the functional diseases when the latter are taken from the hands of the self-appointed guardians of the human race and put into the hands of the medical psychologist. In order to accomplish this object, however, the man in the field (the general practitioner) must see in such cases something more than an imaginary disease—he must realize that there are diseases in which we cannot find any pathological change nor a germ to account for it, and which can neither be attacked by a knife nor benefited by an antitoxin. When we awake to the importance of the proper treatment of the cases under discussion, then every town of any size and certainly every center will have its trained medical psychologist to whom the practitioner can refer his psychopathic patients; the same as every populous center has its hospitals and trained surgeons today.

The practice of psychotherapeutics dates back to the beginning of man. But, as the faith-healer of today practises it, so was it then, by training the patient to depend upon some mysterious and divine manifestation of a supreme being to relieve him of his troubles (like the old negro woman who, being asked about her son who had just been sent to the penitentiary, replied, "I done put him in de hands ob de Law'd") and out of which were born the superstitions which we of today still possess as a legacy of dead generations. In this materialistic age, however, psychotherapeutics no doubt is dreadfully neglected by the medical fraternity; the practical application of it, at any rate. If we cannot find some pathological change to account for the symptoms, we dismiss the case as one of no consequence, with the statement that "your trouble is all imaginary, put it away." Consoling to the patient, isn't it?

I do firmly believe that it is the lack of knowledge on the part of the general prac-

titioner of the psychic diseases, and his lack of sympathetic understanding with this unfortunate class, whose members are ever increasing, that makes possible, in this twentieth century, all the various fads and fancies of medicine—the faith-healer, the Christian scientist, the quack, and the charlatan.

We have seen a neurotic woman quieted and made to sleep by a hypodermic injection of sterile water in place of the solution of morphine on the night before. Though the plain, unmedicated water accomplished the temporary purpose for which it was intended, it carried with it no educational influence, without which there could be no permanent good. It was deceit, and to deceive is fraud, and fraud is quackery.

We can not hope to fight the irregular practitioner by following too closely the method he pursues. We fight fire with water, not by adding fuel to the flame. The giving of a placebo is the acknowledgment of ignorance on the part of the physician administering it. The surgeon who performs a mock operation or the physician who gives a placebo would have done better to have turned the case over to soneome better qualified to handle it. Allow your patient to drift along as a raft caught in the current of a swift-moving stream, unimproved by your treatment or unadvised as to the proper person to take charge of him, and we blame him not for landing (since the chance current must pitch him somewhere) into the hands of the quack or the faith-healer, whose livelihood depends on his ability to deceive and defraud.

There is such a thing as psychotherapeutics, there is such a thing as its scientific application. To that stubborn fact we must awake. The application of psychotherapeutics, when indicated, is, like internal medicine, a science—yes, more, it is also an art. But we have the faker in the one class, as we have in the other. We have with us the faith-healer (who has the art, but not the science), as we have the patent-medicine vender.

Psychotherapeutics is not fraud when scientifically applied; that is, when based upon an accurate diagnosis through the analysis of the psychic condition of the patient. Then it becomes truly educational, in that it brings to the patient's knowledge the cause of the symptoms and the proper method of control. It is drawing on the patient's latent energy, it means the developing of the consciousness of power within him. It is the breaking of a harmful habit, and the reorganization of a useful one to take its place. It is the rediscip-lining of a demoralized army (or some one division thereof), to make it a useful member for the purposes for which it was intended. It is not masking a symptom, but curing a disease.

Psychoanalysis is to the psychologist what the microscope is to the laboratory man. By it, the former analyzes the psychic functions, as the latter, with his microscope, makes a blood count. It aids in the diagnosis and directs the proper treatment.

W. B. ROBERTSON.

Mammoth, W. Va.

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[In an early number of CLINICAL MEDICINE we hope to have a paper describing Freud's method of psychoanalysis in nervous disorders, which seems to have upset the prevailing ideas in neurology.—ED.]

IODIZED CALCIUM

After using iodized calcium for some time, I have decided that it is one among our most important remedies, in winter months, in the general practice of medicine.

In persistent cough of a hoarse or croupy character, it has no equal so far as I know. My adult dose in such conditions is 2 or 3 grains of the powder in a swallow of hot water every half hour for about three doses, and then every hour as long as needed or until much better; then less frequently.

Iodized calcium is a good remedy in almost all forms of coughs and lung complaints. In various lung and bronchial complaints, it can be alternated with emetine hydrochloride, or, if this is not at hand, small doses of Dover's powder.

Occasionally my treatment for a cough and pain in the chest is iodized calcium internally and libradol (Lloyd) externally.

The libradol should not stay on longer than two hours or until nausea is produced, but can be reapplied as needed.

If I were limited to only one remedy in the treatment of all forms of tonsillitis, I should select iodized calcium, as according to my experience I have never found any remedy that will give as good results as this one. At first small doses of calomel and podophyllin are given, followed by a laxative saline, then iodized calcium, 2 or 3 grains every half hour, hour, or two or three hours, as needed. A weak solution of potassium permanganate may be used as a gargle or sprayed on the tonsils. Iosaline (a combination of iodine, menthol, alcohol, and oil of wintergreen) can be applied externally over the region of the tonsils.

"Colds," in the beginning, can usually be aborted with 10 grains of iodized calcium at bedtime. Grip can be managed with iodized calcium, while if there is much pain and fever, it may be alternated with acetanilid. In cases of enlargement of the lymphatic glands, iodized calcium may be given internally, and an ointment of biniodide of mercury used locally.

Iodized calcium is tolerated by the stomach better than any other form of iodine; in fact, I consider it the best form of iodine we have, and it will almost entirely take the place of all other forms of iodine for internal use.

I have never tried iodized calcium in membranous croup, but if I should have a case, I should give it internally, and give Lloyd's hypodermic lobelia subcutaneously.

If a physician who does his own dispensing (a thing that all should do) has a good supply of iodized calcium, libradol, iosaline, potassium permanganate, emetine hydrochloride, Lloyd's hypodermic lobelia, inhalers, and some good inhalant (like this, for instance: Oil of pine needles, guaiacol, 2 drams of each; camphor, 4 drams; menthol, 6 drams; oil of eucalyptus, 1 ounce. M. Sig.: Pour enough in the inhaler to moisten the sponge, and inhale through the nose or throat, or use in an atomizer), he could treat most of the common throat and bronchial troubles that occur in winter months. Of course, he should clean out and keep clean as in almost all other cases. The compound emetic powder (eclectic), and calcium creosote would also be of value to keep on hand.

J. A. BURNETT.

Gans, Okla.

ATROPINE VALERATE FOR BED-WETTING

I have never seen atropine valerate recommended for use in that common trouble, "wetting the bed," and so I wish you would call attention to the fact that this remedy will cure the disease in almost every instance. I have had only one failure, and that child was not affected by a single one of all the remedies that have been recommended, for I have tried every one.

Many doctors treat the disorder lightly, but if they could realize the trouble to parents and the humiliation to the child ten to sixteen years of age who floods the bed every night, they would try as hard to cure this as the more dangerous diseases.

I usually give the atropine-valerate granules all day on the first day of treatment, and give enough (according to age) so that there is a slight dryness of the mouth. Thereafter I give three doses at night, the last one three hours before bedtime, experimenting until I find a dose large enough to stop the trouble without causing any disturbing drug symptoms.

Usually there is no trouble after the first days' treatment. However, in the last case I treated there was some annoyance for three days, but since then the patient has not wetted the bed, and the whole family is rejoicing.

I employ this same remedy for a number of other diseases, among them, acute coryza, headache, insomnia, and "nerves."

L. A. COOK.

Olympia, Wash.

PROVIDENCE OR LUCK?

This is a true New Year medical story. Was seated in my office, thinking of friends and gifts. Employed man was arranging curtains, on a ladder. Office man came in

suddenly: "A woman down stairs says S. is choking. Come quick." Ran out of my office and asked: "What's the matter? Tube out of throat?" I'll be there as soon as possible. Go for another doctor." Went to my instrument-drawer. In a few moments found adult tracheotomy-tube (Mackenzie's) with director. Ran to house of S. and up stairs. S. lying on floor. Dr. D. had forceps in tracheotomy wound, holding it open. Exclaimed: "He had stopped breathing and I was employing artificial respiration." Pushed him aside. Plunged tube with director in tracheotomy wound and withdrew director. Immediately full-drawn breath, then expiration, throwing blood and mucus over my face and hands. Began to breathe again fairly well. Heart action and pulse reestablished in a few moments. Gave hypodermic of strychnine. Left to wash blood from a freshly cut finger of right hand.

Later found that tube in man's throat was a Mackenzie tube, same size as mine. Probably no others in New York City. Mine not used for thirty years. Bought it when a pupil of Morell Mackenzie's in London at Throat Hospital. Should not have known just what to do, but that, as a friend, I knew S. had a cancer of throat, obstructing absolutely larynx and above, and wearing tracheotomy tube. Tube put in in London.

Acted quite automatically, not reflecting on spur of moment; though guided, no doubt, by knowledge engrafted when house-physician at St. Eugenie's Hospital, Paris, in diphtheria wards, back in 1872. There did thirty tracheotomies, in middle of night, mostly. Was awakened from sleep, rushed to ward to do operation, with Catholic Sister's help, for choking children. Absolute rule in force—breathless child—tube into throat—make breathe. Became second nature.

Any doubt old chap's tale, come here, get names, addresses, confidentially.

An ordinary tracheotomy-tube, by reason of a different curve and length, would have been relatively useless. The man, in my belief, would have died in a few moments, except for this special tube. To me, as I contemplated the curious coincidences afterward, there seemed to be an element of divine guidance involved, as well.

BEVERLEY ROBINSON.

New York City.

REMINISCENCE OF A COUNTRY DOCTOR

To my brethren of the "Old CLINIC Fraternity," Greeting! Happy New Year!

Being a graduate of the class of 1864, College of Physicians and Surgeons, Columbia University, I have an ample space of time over which to scan the progress made by medical science and the art of healing.

The advance of science has always been forward and at a swift pace. The art of healing has not progressed so rapidly.

Along this progress there have arisen many fads—and very many cranks to run them.

Now, these fads and cranks remind me of my many experiences in motor boats. How often have I sat in the stern-seat, with my satchel by my side, and watched the captain of the boat crank up his engine to the utter verge of his exhaustion, but, still, the engine refused to work. Then, after half an hour of such bootless labor under my puzzled eye, I probably remarked quite casually, "Would it not be as well to connect that detached live wire running from the battery to the engine?" Moral: Look well for the seat of trouble before you wear yourself out with cranking.

Again I remember having been detained one time on my journey by the breaking down of the motor power of the boat. Neither the captain nor I could locate the difficulty. However, the problem was solved by a man sitting at the bow, under which the gasolin was stored. Said he, "Do you burn kerosene in this motor?" "No," was the reply. "But, I smell kerosene from your leaky tank," came his enlightening comment. Moral, again: Give the right medicine, and you won't have to crank so much.

These, and many other incidents, have caused me to reflect—how like the average doctor's experience in the practice of medicine. How often have I not seen a patient die as the result of a faulty diagnosis.

Once more. During the long period of my galenical practice, before engaging in preferential alkaloidal medication, I have often witnessed failure in treatment, due to an inert galenic preparation obtained from the druggist on a prescription.

Since I have adopted in my practice the alkaloids as the main reliance in the treatment of disease and have realized their powers and limitations, I have enlarged my successes and diminished failures. Alkaloidal medication is not a "fad" with me. Nor do I recognize myself in the role of a "crank." I compound all my extempore galenic preparations, dispense my own medicines, and shall continue to do so until forced by law to do otherwise.

I will just here recite an example or two of the superior results obtained by the alkaloids over the galenic preparations. I was attending a case of typhoid fever (this was in the early days of my novitiate as an alkaloidist) and ran short of aconitine granules. Not having any assurance of a supply from Jacksonville, I sent a prescription to be filled for the tincture of aconite, acetate of potassium, and spirit of nitrous ether (such as we used during the epidemic of yellow-fever when it raged in Jacksonville.). I administered the remedy but failed to get as good results as had previously been obtained from the granules. Not being able nor having the proper facilities to make a test, I could not tell where the fault was, but believed then, as I do now, that it was to be sought in the (inert) tincture of aconite. After I obtained a fresh supply of the granules, I had no further trouble.

The active principles never fail to do the work proper to their nature and kind, and are always of the same strength.

How often have I been called upon to treat cases, which, for want of a better name, I will call "preapoplectic". Here the administration of atropine granules and a good dose of calomel and podophyllin has removed the immediate danger.

It is my belief that were I placed in the wilds of Africa with a case of the alkaloidal granules and a good supply of calomel and podophyllin, I could hold up a whole tribe of savages.

If our missionaries were to supply themselves thus, and were qualified to use such a gospel of cure, they would convert more to Christianity then they do under our present expensive missionary efforts.

A. T. CUZNER.

Gilmore, Fla.

CHROMIUM SULPHATE IN PROSTATIC HYPERTROPHY

On October 29, 1911, I was called to see J. S., age 70, who was unable to pass urine. I found his abdomen very much enlarged over the bladder, also very marked hypertrophy of the prostate gland. I put my soft-rubber catheter on to boil, expecting to have no trouble in passing it, as I had attended the patient under similar circumstances three years ago when, however, I tried, to pass the catheter, I was unable to reach the cavity of the bladder. After satisfying myself that the soft catheter would not pass I sterilized a metal irrigating catheter that I had with me, but this would not pass because of the curve being too abrupt.

I was up against it, and as the patient was beginning to suffer intensely, I called Dr. Brown, of Kankakee, in consultation. The latter responded promptly with the necessary equipment, and succeeded in passing a metal prostatic catheter with a long curve. The doctor was kind enough to leave the catheter with me, and I had to use it once or twice a day till the following Sunday, November 5, since which time the patient has been able to pass urine without assistance.

By way of treatment, I put the patient on 8 grains of chromium sulphate after meals and at bedtime, commencing the day of my first visit. He is now (November 11) taking 4 grains at a dose.

On November 1 he had a hard chill at about 10 a. m. I saw him at about 6 p. m., when he had a temperature of 101° F., and the urine was very strong-smelling. I irrigated the bladder with boric-acid solution. I also gave him salol, 5 grains to be taken every three hours. On my return, next day, his temperature was normal, and there was no odor to the urine.

On December 1 I was called out again to see the patient. This time he had a decided cystitis, but had no difficulty in passing his urine. I again irrigated the bladder with boric-acid solution.

I did not hear from him for three weeks, when his son came in to pay his bill, reporting the patient as being in his normal condition. I sent out enough chromium sulphate to last him another month, telling them he might discontinue it when the supply was exhausted, unless he noticed some symptoms of the trouble returning. This is January 15, and I have not heard anything more from them. I shall report further should anything more develop in this case. I believe chromium sulphate did the business.

C. O. NELMS.

Herscher, Ill.

THE BLIND MAN

Very few of your readers realize that they are blind—and none of them are totally so. But, if each of them knew just a part of his individual blindness, he would be greatly surprised. Look backward and calculate how much you know today that you did not know ten years ago—and this simply illustrates your blindness. Much of which is new to you was well known before you were born, and all these years you have been blind—perhaps not *intentionally* so. No. No one is thus blind. You had eyes, but did not see; ears, but did not hear; and, hence, you were both blind and deaf. That which you can not see is blank to you.

If you had only known that it requires effort and application to see well, and had diligently applied yourself to this end, you would now realize the difference between "sight" and "blindness." You often ask yourself this question: "How is it that I never saw this thing or that thing before?" The answer is, "You were not looking for it."

I was riding with a lawyer this week, and he pointed out a rabbit—then a pretty girl—then a vast field of ungathered corn—a nice crop of growing wheat, and much more along the road—all of which would have been unseen by me. I was watching the team, estimating the time it would take to make the trip; for I was cold, and the drive a long one. I was preoccupied, and "blind" to the objects we passed in traveling. We were delayed on our return trip—took the wrong road and drove some four miles out of the way. Why? We were *not watching*. We were "blind."

The editor does not fancy long articles; so I close. If I have started you on a line of thought that will open your eyes, I am satisfied. Respectfully submitted,

W. P. HOWLE.

Charleston, Mo.

PNEUMONIA. WHOOPING-COUGH. RHEUMATISM. SCIATICA

Let me give you my own successful treatment of four troubles, briefly described as follows:

Bronchopneumonia (formerly, capillary bronchitis): Minute doses of tartar emetic, 1-3000 grain every two hours, will relieve in twelve hours and cure in forty-eight.

Muscular rheumatism (lumbago, pleurodynia, etc.): Specific bryonia, 1-1500 of a drop every two hours, will cure many cases in twenty-four hours and nearly all in forty-eight.

Sciatica, when pain is caused by motion: Bryonia in minute doses. When pain is bad when quiet but removed on motion: Rhus tox. in minute doses will nearly always act like a charm.

Whooping-cough: Tincture of drosera (homeopathic) in minute doses, 1-3000 of a drop every three hours, and after each paroxysm, will moderate the paroxysm in forty-eight hours, and cure in two weeks.

I am not a homeopath, for I prescribe 1-4 grain of morphine or one of the stronger H-M-C tablets as an initial dose for pain, also 10 grains of quinine sulphate as a single dose, and 2 drams of specific echinacea every two hours for forty-eight hours.

If the diagnosis is right and those small doses of these drugs fail, don't be a John Horse like me and try to force success by increasing the dose, but make it smaller or discontinue the drug.

Of course your basic dogma, clean out the intestinal canal, clean up and keep clean, is necessary as a foundation for the foregoing medication. The use of these drugs in this way is not original with me, but I speak from fifteen years' experience.

GEORGE M. AYLSWORTH.

Collingwood, Ont., Can.

[There are lots of the ideas the homeopaths and eclectics could teach us if we would only let them. As for me, I'm trying to keep my eyes open for new ideas, whatever their source. Aylsworth is full of these ideas. Some of you join me in asking for "more."—ED.]

HALF-BREED EXPERIENCES

The medical profession is probably one of the most serious of all the many professions; how often do we see a poor mortal cross the great river, leaving a sorrowing family behind. Yet in our everyday work there are many experiences that cause us to smile and sometimes to laugh. Such are the incidents I wish to relate.

In the surrounding country there are quite a few half-breeds, and as a whole they are a very shiftless lot. When they get too sick for their herb medicines to cure, then it becomes my pleasure (?) to play the role of good Samaritan, and thus I come to witness some strange things.

One night last winter, with the temperature about 30 below, I was called to see a woman near town who, the messenger told me, was trying to have a baby. I found the poor soul lying on a pallet on the ground. On top of her abdomen was a large trunk with a woman on each side, using their weight on the trunk to try to squeeze out the baby. Now, this was no laughing matter, but the ridiculousness made me laugh, although I gave the two women a good tongue-lashing.

Another case that I saw was very similar, but, instead of a trunk, each woman had hold of a light pole and they were rolling that poor woman's belly as if it were so much bread-dough.

About two years ago this spring I was appealed to by a drunken half-breed to get his squaw well—"He bin sek," as he expressed it. One will notice that most of the breeds call the female he, and vice versa. The squaw was almost dead when I found her in an old tent out on the hill near town. It was a case of pulmonary tuberculosis in the last stages; also the woman was pregnant and at this time was trying to abort. Well, I relieved her of pain, which was about all that could be done. I told the daughter who was with her that the mother was going to die; and death did take her the next night. Now, the strange part of this story is this, that the husband, now sober, came to me the morning after the woman died and wanted me to cut her open to get that baby out. I tried to find out his reasons. However, the only thing he would say was that he was afraid to bury her with that baby.

FRANK E. MCCANN.

Augusta, Mont.

SYPHILITIC FETUS WANTED

I am very anxious to secure a stillborn fetus, known, positively, to be syphilitic. I will pay $5.00 for one. Indeed, I can use several of them. Before shipping please write for instructions as to care in preservation and preparation for shipment.

J. F. BIEHN, M. D.,
Director Scientific Research Laboratory,
The Abbott Alkaloidal Company.

Ravenswood,
Chicago, Ill.

AN ASSOCIATION OF CHEMICAL AND PHARMACEUTICAL HOUSES

On February 6 and 7, representatives of leading American manufacturers met in the Waldorf-Astoria Hotel in New York, and organized the National Association of Manufacturers of Medicinal Products.

About thirty of the leading firms of the United States became charter members of this organization, among them The Abbott Alkaloidal Company, Parke, Davis & Company, Charles Pfizer & Company, Pittman-Myers Drug Company, Powers-Weightman-Rosengarten Company, Schaefer Alkaloid Works, Seabury & Johnson,

Sharp & Dohme, Mallinckrodt Chemical Works, Eli Lilly & Company, Armour & Company, H. K. Mulford Company, Bauer & Black, Merck & Company, Frederick Stearns & Company, Farbenfabriken of Elberfeld & Company, Norwich Pharmacal Company, and others. Practically every one of the larger pharmaceutical, chemical and biologic manufacturing houses is already a member of this body, which was established (mainly through the energy of the brilliant president of Parke, Davis & Company, Mr. Frank G. Ryan) for the purpose of opposing harmful legislation, state and national, and to foster the common interests of those engaged in the manufacture of medicinal products.

The organization will have nothing whatever to do with the control of prices. Its work will be constructive in character and essentially helpful to the medical and allied professions. The association went on record as being opposed to the unnecessary and harmful use of habit-forming drugs, and as heartily in sympathy with every broad-minded movement for the good of humanity. The first president is Mr. Frank G. Ryan, of Parke, Davis & Company; Charles M. Woodruff is secretary and Dr. H. C. Lovis, of Seabury and Johnson, is treasurer.

A PRAYER FOR DOCTORS AND NURSES

Physicians, as a class, are so accustomed to seeing their shortcomings and failings published broadcast and magnified, and to being vilified and ridiculed, considered as a necessary evil at best to which the right of existence is accorded only grudgingly, that the following appreciation is not only a pleasing change, but tends to give encouragement and stimulation to continue in our work. It appeared in *The Volunteers' Gazette*, the official organ of the Volunteers of America. The author is Walter Rauschenbusch.

"We praise Thee, O God, for our friends the Doctors and Nurses, who seek the healing of our bodies. We bless Thee for their gentleness and patience, for their knowledge and skill. We remember the hours of our suffering when they brought relief, and the days of our fear and anguish at the bedside of our dear ones, when they came as ministers of Thee. May we reward their fidelity and devotion by our loving gratitude, and do Thou uphold them by the satisfaction of work done well.

"We rejoice in the tireless daring with which some are now tracking the slayers of mankind by the white light of science. Grant that under their teaching we may grapple with the sins which have ever dealt death to the race, and that we may so order the life of our communities that none may be doomed to an untimely death for lack of simple gifts which Thou hast given in abundance. Make Thou our doctors the prophets and soldiers of Thy kingdom, which is the reign of cleanliness and self-restraint and the dominion of health and joyous saving.

"In their whole profession, strengthen the consciousness that their calling is holy and that they, too, are disciples of the saving Christ. May they never through the pressure of need or ambition surrender the sense of a Divine mission and become hirelings who serve only for money. Make them doubly faithful in the service of the poor who need their help most sorely, and may the children of the working man be as precious to them as the children of the rich. Though they deal with the frail body of man, may they have an abiding sense of the eternal value of the life residing in it, that by Thy call of faith and hope they then may summon to their aid the powers of Thy all-pervading life."

NORMAL SERUM IN HEMORRHAGE

E. B. Probasco concludes, from a review of the recent work on the use of normal serum in hemorrhage (*New York State Journal of Medicine*, 1912, Jan., p. 32) that (1) in normal human blood-serum we have an agent free from danger, simple of administration, and of proven worth in the treatment of hemophilia, hemophilia-neonatorum, and in the hemorrhagic tendency of the cholemic; (2) that further trial is needed and probably will demonstrate the successful treatment of hemorrhage from any

cause whatever, including general infections, such as bacteremia, septicemia, eclampsia, tuberculosis, and probably many other conditions depending upon an abnormal content of the blood; (3) that it is feasible for this work to be carried on in many hospitals and should derive an impetus from the brilliant work of the men quoted in this paper and by others.

WHY THE DOCTOR SUBSCRIBED

I have decided to become a subscriber to CLINICAL MEDICINE for various reasons, the principal one being that it is a good, practical and useful medical journal. In addition to this I owe many courtesies to CLINICAL MEDICINE. I have received many copies in the years gone which have been a real help to me, copies which have helped me out of many difficulties because they familiarized me with "alkaloidal medication," a method of treating disease, the use of which has helped me to save many lives, I verily believe.

In beginning the use of CLINICAL MEDICINE I have discarded a cumbersome old weekly which has done me very little or no good, but which has come to my desk laden with all manner of long-winded articles which very few practitioners of common sense bother their heads about, and which, read and pondered, would muddle and fill with vacancy more brains than they ever could benefit, even if we could have the patience to attempt to separate the wheat from the preponderance of chaff. It is not necessary to name this journal. You all know it.

I also have to thank CLINICAL MEDICINE for straightening out satisfactorily a little difficulty I had with one of its advertisers —not particularly the fault of the advertiser, but the result of one misunderstanding after another which it seems never could have been brought to an end were it not for the prompt and timely intervention of the journal. So now, send on CLINICAL MEDICINE. Do not send the premium, as I am oversupplied with articles just like the premiums you offer. In its place accept my thanks as well as my subscription for courtesies referred to in the body of this letter and believe me to be grateful, and an admirer, although of many years' standing.

ALLAN J. MCDONALD.

Leadville, Colo.

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[We ascribe whatever of success CLINICAL MEDICINE has had to the fact that we place *service* first; above everything we try to make our journal useful to its readers. In doing this we seek to give not only practical help in treating cases—the most and the best we can—but we are glad to go outside the columns of our magazine to help. And so the members of our editorial and business staff are always ready to give a lift over the hard places that come to every physician—when they can.

In another way we try to help also—and that is by inspiring and encouraging our friends, the readers, to greater effort, higher aspirations. They *are* our friends, and why should we not say so.—ED.]

"THE BEST JOURNAL THAT I READ"

I have, I believe, been a constant reader of your journal for seventeen years. I liked if from the first. It was always helpful to me in many ways. But THE AMERICAN JOURNAL OF CLINICAL MEDICINE is of many times more value than THE ALKALOIDAL CLINIC was when I first began reading it. It was then good, I say, but it is now better. I think I can also add it is the best journal that I read.

I remember a case of puerperal convulsions years ago I was treating. Another physician was with me in consultation. We very gravely talked the case over and came to the conclusion that we were powerless to save the patient. Just at that time I remembered a note I had made when reading an article in CLINICAL MEDICINE just the night before. The idea was a new one to both of us, but it was tried, and it saved her life.

Right then I resolved to be more thorough in making notes of every good thing I read, and to record it in a way that it would be sure to present itself at the right time and not to be overlooked just when I needed it.

B. F. STRONG.

Norborne, Mo.

[This thought occurred to me when reading the doctor's letter: *Who was it that gave the idea that saved that woman's life?* Perhaps it was something one of our "faculty" wrote; if so, the doctor's letter will stimulate us to more work and better work. Perhaps it was one of those pertinent, practical notes so many of which are sent us by members of "the family"; if so, how this letter should encourage every reader to go down into the unrecorded experiences and dig up the helpful things, the practical "kinks"—the really vital things that mean so much—"for the good of the brethren." It's your duty, Doctor. Do it. Don't wait to write a long "article." Tell us the straight story of *how* you succeeded or of *why* you failed, and in the fewest possible words. Pay your debt. Will you?—ED.]

THE INTERNATIONAL RED CROSS CONFERENCE

The ninth International Red Cross Conference will be held in Washington, D. C., May 7 to 17, 1912. The notable feature of this meeting will be an exhibition which will be divided into two sections. The first will be styled the Marie Feodorovna section and the second, the General section. The former consists of a prize competition, under which approximately $9000 will be distributed. The subjects of this competition are as follows:

1. A scheme for the removal of the wounded from the battlefield with the minimum number of stretcher bearers.
2. Portable (surgeon's) washstands, for use in the field.
3. The best method of packing dressings for use at first aid and dressing stations.
4. Wheeled stretchers.
5. Transport of stretchers on mule-back.
6. Easily folding portable stretchers.
7. Transport of wounded between warships and hospital ships, and the coast.
8. The best method of heating railway cars by a system independent of steam from the locomotive.
9. The best model of portable Roentgen apparatus, permitting utilization of x-rays on the battlefield and at first-aid stations.

In the General exhibition, various Red Cross Associations of the world will be represented, and individuals or business houses who supply articles having to do with the amelioration of the sufferings of the sick and wounded in war have been invited to participate. Diplomas will be awarded from this section.

Further information can be obtained from the Chairman, Exhibition Committee, American Red Cross, Washington, D. C.

SAURKRAUT VERSUS THE ONION

I noticed in the beautiful January number of CLINICAL MEDICINE an editorial on "Sauerkraut" as used for therapeutic effect in the Massillon Ohio State Hospital.

I agree with you that one effect of its persistent use would cause much "kicking." In fact, the "kicking" was in evidence when I was there in November last.

In this connection I would suggest that the most valuable vegetable for the insane is the onion, as it contains free and combined phosphoric acid, in addition to a considerable amount of sulphur and sugar. But indirectly I have learned that the superintendent of the Massillon Hospital is personally opposed to the onion. I saw no onions there. The onion possesses one of the properties of sauerkraut mentioned by you—it keeps the "bowels moving." So in that respect also it is very valuable for the insane. But, then, there are cabbages and cabbages, and also—"cabbageheads."

It is possible that the particular cabbage used by the patients in the Massillon possess virtues unknown to us. I was on the staff, and a purple cabbage was put on our table. It was very pretty. But unless the superintendent is more specific concerning at least two elements in the last annual report which I have seen from him, it must be written that science will receive no benefit. For in the said report he silently makes black to appear white, and white, black.

Unfortunately, I can write from experience that it is often very detrimental to put the negro insane in the same wards, dormitories and at the same tables with the white patients. There are slightly over

400 insane negroes in the hospital for the insane in Ohio. Of course there should be a distinct hospital for these unfortunates. Politics should have no influence in such a contingency.

There is no allusion to negro patients in the report of the Massillon Hospital, yet there are about thirty of them in that hospital. This intimate blending of the black and white reminds me of the poem on the negro fishing in the Chesapeake Bay. The poem is by Innes Randolph, a Virginian, and is full of philosophical sarcasm on the negro question. It should be read by all. It tells of an old darky fishing who, in the absence of bites, tied his line to his ankle and fell asleep. A drumfish pulled him into the water, and when he was found the fish and negro were so inextricably bound together in death "that it was not known whether the nigger went a-fishing, or the fish went a-niggering."

I must congratulate you on the fact that CLINICAL MEDICINE has almost attained its majority. I had no idea that it is so old. Success to it. How time does fly.

THOS. R. EVANS.

Acme, W. Va.

WHY DOCTORS ARE POOR

On page 1309, December CLINICAL MEDICINE. I notice that some kind hearted people are trying to establish, in Baltimore, a home for the widows and orphans of physicians. God bless such efforts, for if there is any person on God's earth that ought to have—and I believe will have—a bright crown in glory, it is the country doctor. Is there any other class of men who do as much for the sick and afflicted, with as slight compensation? Doctors are expected to respond to every call, night or day, rain or shine, snow or blow, sick or well. They are the first to be thought of when sickness enters the home, and then the last to be thought of when the time comes to pay him.

Yet, whose fault is it? I am inclined to think that the average physician is as much to blame as are his patients; for out of the kindness of their heart, when a patient says, "I am short just now, but will pay you in a few days," they usually will say, "All right, when you get the money I can use it," with the result that many of them forget they ever employed the physician and in a good many instances they forget they owe him. Then there is another reason. Physicians are going along and not charging any more for their services than they did twenty-five years ago, although in the meantime the cost of living has almost doubled, while the cost of the drugs is getting higher every year. Still, if the doctor ventures to charge a little above the old price, the people kick or employ a competitor.

How are we going to remedy this evil? It is an evil, for the average physician is, at the present time, not paid according to his services. I say, let each and every county medical society get out a fee-bill and establish prices that are right and furnish a copy to every practitioner in the county, with the distinct understanding that all shall live up to the agreement, under penalty of being expelled from the society. This certainly would do the business if the physicians would stand fast, and they would have just as much business and be better paid, and their patients would think just as much of them, or more, I believe. The physician who charges a good fee and collects his bills promptly is better patronized and better thought of and holds his patients better than the man who tells them to pay when they have the money.

I should very much like to see this important matter taken up and discussed, and see if we can not improve the financial condition of the average physician by getting them to advance their fees.

I am going to contribute my mite to the "Home," and if one thousand more will do as much, they will bring together enough to open it soon. May God bless the Home, and let every effort be made to maintain it.

W. A. THOMAS.

Lorimor, Ia.

[This reminds me of a letter just received from a doctor friend who has fallen into financial straits, mainly because, as he puts it epigrammatically, he has had this practice: "I throw off half the bill, and the

patient throws off the other half." The fee question certainly is a vital one, and we hope that the doctor's appeal may be sufficient to excite a lively discussion of it. The columns of CLINICAL MEDICINE are open. Everything seems to be climbing except the doctor's income. What shall we do to remedy this condition?

Did you read the editorial in our February number on "A Sanitarium for Physicians"? If you haven't read it, do so now. Already we are beginning to receive letters of approval, urging us to go forward. One physician, living in a beautiful southern city, a natural health-resort, has offered to donate a site. Look for his letter next month. We shall keep on hammering away, and we want your help. Who has a practical plan to offer? How can we proceed to accomplish something for the old a doctor and his family? Give us your ideas. We propose to give this subject the "right of way" in an early issue. Let us hear from every one interested—and who is not?—ED.

SANTONIN IN NONSPECIFIC URETHRITIS

Before coming to New Mexico, five or six years ago, the writer treated one hundred cases of nonspecific urethritis with 1-grain doses of santonin, given three times daily, with universal success. These cases were uncomplicated, except for the nervous irritability that is likely to be caused by the disease. The following cases, typical of the others, will suffice to illustrate.

Mrs. G. N., aged 40, called for the relief of a scalding, burning sensation in the urethra when evacuating the bladder. She had been in this condition over a year and her physician had failed to relieve her. Twelve 1-grain santonin powders were prescribed, one to be taken three times daily. A few days later she reported complete relief and cure.

Mrs. J. J. P., aged 43 years, came complaining of a burning, smarting sensation on micturition. There was no history of specific trouble and no discharge. This trouble had existed for five or six months. One grain of santonin three times daily gave perfect relief in two or three days.

Miss M. J. K., aged 22, came for relief from burning and smarting when voiding urine. No cause for this condition was discernable. She had been afflicted for several months. I gave 1 grain santonin three times a day. She reported herself cured in four days.

Smaller doses of the drug might prove as effective, but were not tried. The numerous cases treated by the writer and other physicians to whom he imparted the information is certainly sufficient to establish santonin as a remedy, not to say a specific, in nonspecific urethritis.

WM. TANNER.

Jordan, N. M.

[When there is "a scalding, burning sensation" in the urethra do not forget to examine the urine. Usually it will be found hyperacid and the condition will be relieved by appropriate antacid medication. Won't others try the santonin and report? There's a useful idea here.—ED.]

DR. VON KLEIN'S TRANSLATION OF THE "PAPYRUS EBERS"

I wish to call the attention of those readers of CLINICAL MEDICINE who are interested in historical research to a translation by Dr. Carl H. von Klein of the Papyrus Ebers, which, as is well known, is one of the most important historical medical documents. Since the announcement of this translation, over 600 subscriptions have been secured, but the work cannot go forward unless an edition of 1000 copies can be printed and paid for. Even then Dr. von Klein tells me that he will receive no remuneration whatever for his labor, which is to be entirely one of love, and a monument to his years of research and study.

Dr. von Klein has spent the odd moments of twenty years of a busy, useful life, mostly devoted to the literature of our profession, on this work of love, and it will be regrettable if it is now lost when so little will not only preserve it to our profession, but

give its faithful author the satisfaction of seeing it in print.

The book will consist of 650 pages, seven by ten inches, in two colors, red and black, similar to the original, with six plates, bound in one volume. Subscriptions may be sent directly to Dr. Carl H. von Klein, Medical Department, John Crerar Library, Chicago, Ill. Dr. von Klein will publish this volume personally, and it will be sold only on subscription.

Some time ago I had the pleasure of examining the manuscript, and I venture to express the hope that enough physicians will be found, not only to insure the publication of this work, that is, one thousand, copies, but enough to secure at least a small remuneration to Dr. von Klein for his arduous work of translation.

H. J. ACHARD.

Chicago, Ill.

JUST A LITTLE VERSE

This month we are printing a number of poems. With few exceptions they have been sent us from time to time by our readers. They are but a part of those which we have received, and we have a number of others which are worthy of a place in these pages, but which we lack space to publish at this time.

Perhaps a medical journal is not the right place for poetry; but it seems to please many of our readers—most of them I think. If *you*, brother doctor, are not one of them, skip the next few pages. But we advise you to skip nothing! A little bit of poetry now and then is good for all sorts of men. Get the habit!

"MAKE GOOD"

Doctor, make good,
Cut out "if," "could," and "should,"
And start in to saw wood.
You can still have the best
Things in life, like the rest
Of the men who've achieved
Just because they've believed
In themselves. You're deceived
If you think fortune comes
With a rattle of drums
And a fanfare of state
To hand *yours* on a plate.
That isn't the way
That she visits today.
You must get out and rustle and bustle and hustle;
You need all your brains, for you've got to tussle,
Get into the fight,
Show folks you're all right,
And keep working and learning.
Don't let up with your striving
Till things meet your liking.
For God's sake stop bawling—
Instead, do some mauling.
It makes the world bitter
To look at a quitter;
Fate scowls when she sees
A grown-up on his knees.
A man with his health
Is a mine jammed with wealth
Full of unexplored lodes.
Why, the freckled-back toads
Have the sense to keep jumping—
And here *you* are frumping!
Come now, strike your gait—
It isn't too late,
There's no such thing as fate!
Drop that fool-talk of "luck,"
Get a grip on your pluck,
And buck.
Begin
To grin
And win.

—*With Apologies to Herbert Kaufman.*

DOC BEN AND THE PACING BAY

The simple tale that follows here
Was told me by a mountaineer;
Who to the Junction drove me down,
From a fishing trip to Hypotown.
He related, in his drawling way,
Of a mountain shack where a woman lay
In straits so sore that the end was soon,
Unless relief should come by noon.

This message came at 10 that day
To Dr. Ben and his pacing bay,
And they broke all records for twenty mile,
Through the hills and dales of old Lamoille.
Our doctor's loved by us mountain men,
And we stand by him through thick and thin,
But his actions oft-times bring a frown
To the temperance folks of Hypotown.
He has no love for power or pelf,
His greatest enemy is himself;
But to see him stripped, in a fight with death,
You'd do as I did, hold your breath.
I've seen a piece of busted saw
Split my boy's head open, from crown to jaw.
They say Doc's ways are crude and rough—
He pulled Jim through, that was enough.

This Bay is a vicious rat-tailed mare
With an iron mouth and a watch-eyed stare.
She has the loping swing of the split-ear breed,
Is as quick as a cat, has stay and speed.
She is muscled big, from knee to shin,
With a barrel short and well ribbed in;
She has the sloping hips of her racing sire,
And her crooked legs are springs of wire.

These two are famed for miles around,
From Mansfield to the Magog ground;
No flood, no storm, nor drifts of snow
Could stop them when they wished to go.

At 10:15 they made the start,
With bags strapped down to the two-wheeled cart,
At 11, they'd crossed the Hog-back hill;
With full ten miles to cover still,
They were crusted deep with sweat and grime,
For the Hog-back is an awful climb;
But Doc knew now he could let her sail
Through the straight white way of the Intervale.

She mixed her gait for a rod or so,
Till she struck her stride, then he let her go.
Six miles she held a forty clip,
In inches of sand with not a skip;
So steady she went on that heavy track,
You could play with jackstones on her back.
Then he took her back, but made no sound,
For the rest of the way was rising ground,
And he saw by the red of her watchful eye,
She'd made up her mind to do or die.

Now, a cloudburst had, the day before,
Filled Rattlin Brook from shore to shore;
But they made no sign if they heard our shout:
"The old red saw-mill bridge is out."
We could do no more but spring aside,
And, fascinated, watch that stride
With open mouths and looks aghast
As that cloud of dust went swinging past.

She was pacing when they topped the ridge—
She paced on the 'butments of the bridge—
She paced as into the air they flew—
No, I wouldn't say that she paced clear through.
But I will say this, as I said before,
I saw it all, for I ran to the shore,
And stood on that stone, below the mill:
When they struck the stream she was pacing still.

The Rattlin' brook was twelve feet deep,
And the opposite bank was rough and steep;
But before our cheers had died away
The Doctor, the cart and Pacing Bay
Had forded the stream and gained the road
And so, without speech or touch of goad,
He guided her up this last long hill,
Two miles and a half from the old red mill.

As they slid through the gate and into the yard,
She was going strong but breathing hard,
And her dark-red coat was white as flour,
For she made that ten in half an hour.

When the watchers saw the battered pair,
They rubbed their eyes, to better stare.
The sinking woman heard the hum,
And smiled when they said: "The Doctor's come."
As he loosed the straps from his old black bag,
He caught a glance from that watch-eyed nag,
That said as plain as eyes could shine:
"You do your part now, I've done mine."

He did his part, as you will hear,
So well that time in Belvidere;
For twenty hours his vigil kept,
He neither ate, drank, smoked or slept.
When all thought they had seen the end,
And softly wept as the kneeling friend
Who led the prayer said, "She has gone,"
He never spoke but worked right on.

Well, to cut it short, he got a start
Of blood through that torpid, lifeless heart;
Then sighing respirations came,
And doubting friends took heart again.
Soon the color crept to lip and cheek,
And she moved her head and tried to speak,
But failed; then feebly tried again,
And just said, "God," and "Dr. Ben."

When the babe lay on its father's arm,
And Doc deemed the mother safe from harm,
He lifted his pipe and wended his way
To the barn where stood the Pacing Bay.
She was keen as a briar from her two days' rest,
And she pushed her nose hard 'gainst his breast—
So you can see what folks our way
Think of Dr. Ben and his Pacing Bay.

E. J. MELVILLE.

St. Albans, Vt.

TO A DOCTOR'S WIFE

Oh, dearest of all God's creation!
Sweet goddess of my adoration,
I kneel and seek sweet consolation
From thee to glean.
My soul lies prostrate here before thee,
And this—this only—I implore thee,
Oh, let me evermore adore thee,
My heart's dear queen.

Be thine the benison which blesses
Borne on each zephyr that caresses,
With lover's kiss, thy truant tresses,
My ladye faire!
Be thine the incense of the flowers
Which greets the early morning hours,
From censers swung in fairy bowers,
With voiceless prayer.

Be thine the homage of the fires,
Which blaze upon the funeral pyres,
As each departing day expires
In crimson flame;
And as the light fades on the ocean,
My heart shall voice its deep emotion,
As kneeling there in wrapt devotion
I breathe thy name

G. A. TROTT.

Munday, Tex.

REMEMBRANCE

"Do I remember you?"
You ask of me, dear one;
Say, could the vault of blue
Forget the shining sun?
And so must I remember you!

There's not a bird that sings
Through all the livelong day,
And not a flower that springs
Along the woodland way;
But tells me to remember you!

No joy that thrills my heart
Or tear that dims my eye
But is of you a part,
And bids me know that I
Am blest, since I remember you!

And through the whole day long,
Until the darkening night,
And from the evensong
Until the morning light,
I *live* but to remember you!

FRANCIS MCKINNON MORTON.

San Antonio, Tex.

THE FORGETFUL LIVING NOT THE UNFORGOTTEN DEAD

'Tis not the friends that death hath taken
(They are but sleeping and will waken),
For whom we grieve and stay uncomforted,
But those who, living, still to us are dead.

Who, though we love them, seem to love us not,
Holding their lives a separate act and thought;
Indifferent to the tender ties which hold
Us to them, through remembered days of old.

More than we miss those who have gone above,
We mourn for friends still here who show no love!

E. S. GOODHUE.

Kailua, Hawaii.

KINDLY MAIL CHECK

How dear to our heart is the steady subscriber
Who pays in advance at the birth of each year,
Who lays down the money and does it quite gladly,
And casts 'round the office a halo of cheer.
He never says ,"Stop it; I cannot afford it,
I'm getting more journals than now I can read."
But always says, "Send it; we doctors all like it—
In fact we all think it a help and a need."
How welcome his check when it reaches our sanctum,
How it makes our pulse throb; how it makes our hearts dance.
We outwardly thank him; we inwardly bless him—
The steady subscriber who pays in advance.

[The most "precious" verse is not necessarily that which meets the approval of the literary critics. For instance, the preceding is quite a little gem—from our point of view. Please read it carefully—then read it again the succeeding day, unless the first reading has "sunk into your soul" enough to cause you to "get busy."—ED.]

HERE ARE THE FACTS

If I asked you rather sudden, "What is Sun Yat Sen?"
And you were of the army of the world's fine drinking men,
You would pinch your lower lip up 'twixt your finger and your thumb,
And reply: "You take two fingers of the finest Medford rum
And a shred of lemon peeling and a cherry—and I think——"
But you would be quite mistaken—Sun Yat Sen is not a drink.

Or, if you were a woman moving in the social set,
You would draw your brows together and your fancy you would let
Hover 'twixt the scents of gardens and of orris root and say:
"It's something between patchouli and the scent of new-mown hay
And wood violets and lilacs and red roses in full bloom——"
If you did you'd be mistaken—Sun Yat Sen's not a perfume.

Sun Yat Sen's a rather little yellow fellow sans a cue;
He has freed the Chinese millions from the rule of the Manchu.
He is leading the republic along freedom's rocky trail;
He may win the level plateaus or may stub his toe and fail.
He may measure up too puny for a leader among men—
But he's got the whole world asking: "What is Sun Yat Sen?"

"Is he big or is he little? Is he built to stand success?"
But, however time may answer, he has stood the storm and stress
Of the starting, stood the danger, stood the price upon his head.
He has stood steadfast to duty through the days and nights of dread.
He has marshaled, drilled, controlled the hordes of yellow fighting men.
He's a man, and not a perfume or a drink, is Sun Yat Sen.

—*Chicago Daily News.*

[Of course you read the editorial on Sun Yet Sen, the Chinese physician-patriot, provisional president of the great Oriental republic—a *man* indeed!—ED.]

THE WEEK IN SCHOOL

Monday's Adeniodal Day—
Bring bandages and salve;
For Doctor Jones will cut away
The adenoids you have.
No doubt you will be overjoyed,
When Doctor Jones is through,
To know no fretful adenoid
Again will trouble you.

Tuesday will be Tonsil Day—
Of that please make a note;
For Doctor Brown will cut away
The tonsils from each throat.
Bring cotton, lint, and vaseline.
This class meets sharp at ten,
And tonsils will be snipped off clean—
Nor trouble you again.

Wednesday is Appendix day
For Classes A and B;
When Doctor Smith will cut away
This superfluity.
Please don't forget the day, as said—
The classes meet at ten.
Bring needles and a spool of thread,
To sew you up again.

Thursday's Antitoxin Day—
So kindly be prepared;
Bring gauze and antiseptic spray.
All right arms will be bared,
Or left arms if you so elect.
Be punctual, pray do;
For Doctor Puncture will inject
The serum sharp at two.

Friday's Vaccination Day
For fall and winter terms;
Those who have fresh scars will stay
For antityphoid germs—
Half a billion's the amount.
Classes meet at four.
Doctor Green will make the count—
Doctor Gray will pour.

Saturday's Reaction Day—
Thermometers at three;
Bring stethoscopes—and Doctor Gray
Will make blood-counts, to see
How science triumphs o'er disease—
How antitoxins rule.
Now mark the weekly program, please,
And don't be late for school.

—*Saturday Evening Post.*

[Printed for the express purpose of permitting some poetical practitioner to reply—in verse, of course. One-stanza comments preferred.—ED.]

THE OLD DOCTOR

His days are almost past, his race is run;
His many, many battles fought, and many won;
By him the enemy was oft outflanked;
By him the victory won; he oft unthanked.

The old gives way to new. Perhaps 'tis best;
It gives him time to meditate, to rest,
And, looking back, to see the path he trod
Was that for which he thanks his heavenly God.

He boasts not of his own unequalled skill,
But credit gives to the Almighty's will;
Usurped he not the power to lengthen life,
But fought his best in many a weary strife.

His mind goes back to times where he, himself,
Regardful not of honor, fame or wealth,
Fought, step by step, the enemy—disease—
And gave his patients cheer, and hope, and ease.

His labor was not always cheerless. When,
A hard-fought battle won, the human ken
Acknowledging he won, gave him the praise,
Oft eased his troubles and oft smoothed his ways.

It gave him strength and confidence and vim
To combat ills, while looking unto Him
Who holds alone the pow'r o'er death and life,
For power to gain the victory in the strife.

And, now his steps are tottering t'ward the grave,
Let us honor him who, gentle, just and brave,
Watched over us in thoughtless childhood days,
And later guarded us from error's ways.

Let us give him mead of praise, in his last years,
Who changed, with gentle skill, the bitter tears
Of many into joyous laugh and song,
Who comforted the weak, who helped the strong.

Let us make his last few days upon this earth
A pleasure, and thus recognize his worth;
And when his steps keep time with ours no more
We'll know his soul has reached the happy shore.

GEORGE HARWOOD.

Johnson, Tex.

DES A BIT LONESOME

When I doan see you
Dis ole wurl doan seem des rite;
It gits mity lonesome, long 'bout nite,
When eveything is dahk an still,
An' way off in de woods a whipperwill
Or hoot-owl is callin' to his mate.

Ef I cud des see you once in a while,
Look at you eyes, or see you smile,
Or heah you lafter lak a runnin' brook,
It wulden't seem lak sumone been an took
De bes paht of my life away.

Sumtimes I lays awake at nite
A-lookin at de milky way, all shinin white;
An I declars if ever I gits up dar
An see's ole Peter sittin in his char
An holin of de golen key, and he tells me,
"She ain cum yit," I'm des goin' to sit down an wait,
An lean my haid up gainst de pearly gate—
No use in my climin de shinin' stair,
Kase it wulden't be Heaven, Honey, less you was dar.

H. H. REDFIELD.

Chicago, Ill.

IODINE AS A SKIN DISINFECTANT

Dr. Paul Carnot, in an article in *Paris Médical*, Nov. 4, 1911, says that, since the researches of Heussner, and still more of those of Grossich, iodine has been employed widely as a surgical antiseptic, and particularly for the disinfection of the skin or of wounds preparatory for operation. Simple painting of the skin or the wound margins with a 10-percent tincture of iodine, without previous cleansing, suffices to insure preoperative asepsis and to secure prompt healing of the wounds.

This method is of very great value in the case of emergency operations—requiring only two minutes to prepare the patient for operation—and also for the disinfection of contused wounds. For these reasons it should be of particular importance in military surgery, especially in times of war. The only precaution required is to prevent

two cutaneous surfaces painted with iodine from coming in contact with each other.

Many French surgeons found the 10-percent tincture of iodine of the French Codex [Pharmacopeia] too strong, the same sometimes causing inflammation, and they generally dilute it with alcohol about one-third or one-half. This is also the practice of Hesse, who employs an alcoholic mixture of 2 parts in 8 parts. Bogdon first rubs the operative field for one or two minutes with slightly iodized benzin (0.1 percent) and then applies the tincture of iodine. Donati uses only a 1-percent solution of iodine in alcohol, which is applied to the skin by friction two or three times, and in this manner avoids all danger of eczema or of dermatitis. W. Kausch warns against disinfection with a diluted tincture of iodine as being insufficient unless the skin is briskly rubbed with it for five minutes. On the other hand, it is not advisable to pour the tincture of iodine into a dish before using it, because the rapid evaporation of the alcohol may, by increasing the degree of concentration, produce a burn of the integument.

Iodized benzin, which was formerly suggested by Heussner, forms the subject of several literary contributions during 1911. According to Frank, this article should not be prepared by adding the official tincture of iodine to benzin, because the water present in the former does not mix entirely with the benzin and with the paraffin oil of this mixture. It is better to dissolve one Gram of iodine in 750 Grams of benzin (which takes only a few hours) and then to add 250 Grams of paraffin oil. G. Meyer uses only 1-2 Gram of iodine for 600 Grams of benzin and 200 Grams of paraffin oil.

The disinfection obtained by the application of iodized benzin is very satisfactory, but this medium has the disadvantage that it spoils rubber gloves and, besides, sometimes acts as a local caustic. Von Herff, who considers acetone-alcohol to be the best disinfectant for the skin, applies, after its use and for the protection of the wounds, a filtered solution of 10 Grams of benzoin and 10 Grams of dammar resin in 100 Grams of ether, to which he adds 20 percent of a solution containing 7 Grams of iodine and 5 Grams of potassium iodide in 100 Grams of alcohol.

In an experimental way, Grossich already had shown, on microscopic slides of skin that had been treated with tincture of iodine, the deep penetration of the latter, a property characteristic both of alcohol and iodized solutions, the iodine at the same time uniting with the fatty acids of the skin. This power of penetration is decidedly diminished if the skin is previously washed with water and soap, as has been shown by the experiments of Walther and Touraine, and by the more recent investigations, both histologic and bacteriologic, of the Italian, Duse. According to Seelig and Hould (*Surgery, Gynecology and Obstetrics*, 1911, March), the combination of two substances of high osmotic power (iodine and alcohol) results in a solution, the osmotic power of which is greater than that of the component substances separately.

These same authors have also shown the power of penetration of alcohol and iodine through living animal membranes. [The following account of their experiment is taken from the original communication.—TRANSLATOR.] An anesthetized rabbit was stretched on the operating board, and a square flap of skin was dissected from the abdomen in such a manner that it remained attached on one side, so that it continued to receive the necessary blood supply. This (living) flap of skin was then laid over a salt-cellar filled with the germicidal solution to be tested so that it pouched into it. (The same procedure was carried out with live mesentery and live omentum.) Into the pouch, which was bathed on the lower side with the fluid to be tested, was put a measured quantity of a broth culture of bacteria, so that, as it were, a living osmometer was established.

In this way it was found that alcohol penetrated in direct proportion to its percentage-strength, and the authors determined that it even penetrated the hide-like abdominal skin of the rabbit. Tincture of iodine penetrated the skin and killed the bacteria even more rapidly than did strong alcohol. In the case of the thin mesenteric membrane the tincture of iodine dialyzed

so rapidly that the bouillon was colored before it was possible to add a platinum-loopful of culture.

These beautiful experiments afford a proof and full vindication of the very simple and practical method of disinfecting the skin by applying an alcoholic solution of iodine.

WHOOPING-COUGH COMPLICATED WITH ENTEROCOLITIS

On September 30 I was called up by Mr. R., who wanted to know whether I would meet Dr. H. at his house to see his baby eighteen months old, to which I assented, saying I should be there in one hour. The patient's home was eight miles from my place. I met the other doctor at the store, about 300 yards from Mr. R.'s house, and took him in the buggy with me. On the way, Dr. H. said the baby was going to die, and there was no chance for its recovery.

On arriving, I found the baby very sick, with whooping-cough and enterocolitis from teething. The child was much emaciated; the temperature was 102° F.; the abdomen tympanitic; it was in the second stage of whooping-cough; the stomach rejected everything taken; bowels acted every few minutes. Dr. H. was not giving any medicine, as he had decided that the little patient was beyond help.

I told the parents that I could not promise much in the way of treatment, but hoped I might be able to control its condition, at least. I thought thirty-six hours would bring a change, as I thought Dr. H. and myself might be able to do something. So we two went out to my buggy, and then Dr. H. told me that the people had had a doctor from another town, several times during the three months, and that they had been giving, mostly, a well-known babies' "bowel mixture," besides calcium sulphide and the general line of treatment in such cases.

I stated that I had a pocket-case of alkaloids, and began suggesting what I should use if the case was mine, and that I thought a trial would bring results that would surprise him. This is the treatment we finally left for the sick babe:

No. 1.—Dosimetric trinity, No. 1, 3 granules to 24 teaspoonfuls of water; and atropine, 1-1000 grain, 6 granules to 24 teaspoonfuls of water.

Directions: One teaspoonful every half hour for 6 doses; then every hour till fever gives way; after that every 2 1-2 hours.

No. 2.—Copper arsenite, 8 granules to a glass of water.

Directions: Give a teaspoonful every half hour until stomach gets quiet and bowels improve. After that give a dose every hour, and in addition every three hours 1-2 tablet of intestinal antiseptic.

No. 3.—Rub the entire body and limbs three times a day with whisky and quinine, and at bedtime rub the body well with sweet oil.

No. 4.—Quinine ferrocyanide, 1 granule; brucine, 1 granule.

Directions: Give one dose of each every four hours.

I left sufficient medicine to last forty-eight hours. But the second morning I got a telephone message saying that baby was improved and they should like for us to call again. When I saw the child, I found all the conditions very encouraging; temperature 100° F., stools occurring not oftener than every hour; stomach quiet and retaining nourishment, which consisted of liquid malted milk, and boiled sweet milk. I continued the treatment, with the addition of one teaspoonful of beef, wine and iron every four hours.

October 5 I called again and found the baby free from fever, stomach and bowels doing finely, taking nourishment nicely, and stools every two to four hours. I added to prescription No. 4, 1 granule of iodoform; kept up No. 2, and ordered Wampole's codliver oil three times a day.

October 8. Doing nicely, general improvement. Discontinued the whisky and quinine, and ordered No. 4 three times a day. Intestinal antiseptics every four hours. Continued beef, wine and iron, and also the codliver oil.

October 15. Baby doing finely. There is no fever, cough very much improved, bowels not moving more than six to eight times in twenty-four hours. I added to the nourishment yolks of eggs that have

been boiled six hours, *ad libitum*; substituted Scott's emulsion for codliver oil; stopped the inunction of sweet oil, and also the No. 4, but kept up the bowel antiseptic as required.

Later—collected my satisfactory fee. Also, took with me the friendship of this particular family, who have not ceased boosting the alkaloids and the doctor that used them.

W. A. BATES.

Purdon, Tex.

OUR FULL PAGE PICTURES THIS MONTH

In the editorial section, this issue, we present full-page pictures of Dr. Rupert Blue, who has recently been appointed Surgeon-General of the Public Health and Marine Hospital Service, to succeed the late General Wyman, and Dr. Charles E. de M. Sajous, who is now the editor of *The New York Medical Journal*. We gave a brief sketch of Dr. Sajous in our February issue (page 138) to which we refer our readers, and brief reference was made to Dr. Blue's appointment in the same number (see page 219).

A few words more should be said concerning the career of Dr. Blue: He was born in North Carolina in 1867, was educated at the University of Virginia and at the University of Maryland, receiving his doctor's degree from the latter institution in 1892, entering the Public Health and Marine Hospital Service in the succeeding year.

Dr. Blue has had many years of distinguished service, both at home and abroad, but what brought him most into the foreground was his successful eradication of the bubonic plague in San Francisco. He was in charge of the sanitary operations in that city in 1903-4, and it is undoubtedly due to his energy and the thoroughness and scientific acumen of his work that the Pacific Coast was spared a very serious epidemic.

In 1905 he was sent to New Orleans, on account of an outbreak of yellow fever; in 1907 was placed in charge of the sanitary work of the Jamestown Exposition; and again, in 1907, he was returned to San Francisco to cope with another threatened bubonic-plague outbreak.

Dr. Blue has, therefore, had ample opportunity to demonstrate his ability as an administrator as well as a sanitarian. President Taft certainly made no mistake when he elevated him to the high office which he now occupies.

TREATMENT OF INFECTIOUS DISEASES WITH MERCURY

Dr. H. E. Jones of Roanoke, Virginia, presents, in *The Virginia Medical Semi-Monthly* for July 7, an interesting study upon the treatment of bacterial diseases.

The author claims that all bacterial diseases are practically to be treated alike, and that their rational treatment is clearly indicated by two of nature's methods of cure, that is, the germicidal and antitoxic powers of the blood. "The specific remedies for the germ-diseases are mercury, arsenical preparations, and serums. Any preparation of mercury is germicidal, the most potent preparation is bichloride, which is the one to be used in severe infectious conditions."

The author then proceeds to show why mercury or its most potent preparations are the remedies *par excellence*, and induces eighteen reasons, the principal ones of which are: the germicidal, antiseptic and antitoxic effects of mercurials; further, the hyperleukocytosis resulting from their administration; the cathartic and diuretic action; and their tonic effect.

"In any germ-disease, the main object is to prevent germ development and to destroy those already developed, and to antagonize the toxins. When we shall have accomplished this, our efforts will be crowned with success. When the infection is severe, inject a full dose of bichloride for an adult, from 1-2 to 1 grain for the first injection. This will be rapidly absorbed, quickly making a poor soil of the blood and tissues for germ development. The germs will be crippled and weakened, opsonized, and they will offer less resistance to nature's efforts. Hyperleukocytosis will be increased, a greater number of phagocytes will be developed to destroy the

germs, and the antitoxic action of the blood will be increased.

"A few hours after the first hypodermic dose give 1-16 grain of bichloride, by the mouth, every two hours, and give 1-8, 1-4 or 1-2 grain hypodermically (size of dose depending upon age and size of patient, and severity of infection), once a day until from three to eight injections are given. As soon as full physiologic effects are observed, reduce the dose and lengthen the intervals, so that the physiologic effects will be continued but not increased.

"For bowel and kidney elimination give 5, 10, 15, 20 or 30 grains of calomel (dose depending on age and size of patient, degree of fermentation, and constipation and toxemia), followed in four to six hours by castor oil or laxative saline. The calomel can be given every second or third day (usually at night), as it is indicated. Usually in from five to twelve days the acute diseases of short duration will be under control or cured. In those of longer duration, for example tuberculosis and syphilis, the heroic treatment will have to be periodically repeated (with interval of rest and tonic treatment between) until they are cured. From recent literature and observation, practically all such cases will be cured, especially when the treatment is commenced early in the disease."

The pathology of syphilis, tuberculosis, cancer, leprosy, glanders, etc., is practically analogous, i. e., round-cell epitheloid and giant-cell infiltration is characteristic of all of them, and may attack any tissue of the body. Hyperleukocytosis occurs in all of the conditions named as a defensive effort on the part of nature to effect a cure. The blood-serum's function is antitoxic.

The author considers that the ultimate effects of bacteria of these diseases upon the human organism and of their toxins are analogous, that is, they produce a disintegration and disorganization of the blood and of the textures of the body, and he considers it logical, owing to the close resemblance of germ-diseases to syphilis, to conclude that the specific remedy for syphilis is specific for bacterial diseases also.

The author states that he has treated three cases of pulmonary tuberculosis successfully with mercury; also one case of tuberculous meningitis, giving in the latter case, in a patient aged two years, nineteen injections. Further, he has treated one case of tetanus successfully, ninety or more cases of typhoid fever without a death, and reports a complicated case of malaria treated with mercury and the iodides, with prompt cure. In the cases of typhoid fever which the author reports, the temperature dropped downward from day to day until it reached normal in from six to eight days, entirely at variance with the temperature curves under the old line of treatment, where it shows an upward direction until the eighteenth day in the case of typhoid fever.

The ideas of Dr. Jones, while not original, are startling in their extreme nature. While his theory is not always sound, the facts which he advances are certainly remarkable and tempting. Unfortunately, the experiences with mercury in the treatment of tuberculosis, as proposed by Barton Leslie Wright some three years ago, have not been as successful as one might wish.

NEWS NOTES

THE state medical examining boards of Utah and Idaho have entered into a reciprocal arrangement by which certificates granted by either board will be honored by the other.

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DR. GEORGE B. SHATTUCK, who has been the editor of *The Boston Medical and Surgical Journal* for more than thirty years, has retired. He is an able man and has done splendid work.

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THERE is an excellent opening in a new settlement in Oregon for a young Catholic physician. Will anyone interested write for particulars to Rev. P. Placidus, O. S. B., Conception Abbey, Conception, Missouri.

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DR. J. B. Wright, of Portland, Oregon, submits the following: "If you are going to give calomel to children for summer diarrhea, remember the advice of Puck to young people about to get married, 'Don't.'

Mercury with chalk is a much better remedy."

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The Medical Herald, of St. Joseph, Missouri, is growing better and better. In the January issue there was observed an article by Dr. F. E. Stewart, on "A Plan for Collecting the Newer Materia Medica." If you haven't read it, you had better do so. It is worth your while.

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Among your medical friends there must be some who *ought* to be subscribers to Clinical Medicine. Doubtless you can think of a dozen or more. If you will send us their names, we shall see to it that they get three copies of the journal, with your compliments and with ours. Help us boost.

—

Flowers of appreciation. How sweet they smell. We like them, every blooming one of us, and that is why we reprint the following sentence from *The Denver Medical Times*: "As an all around aid and comfort to the working physician The American Journal of Clinical Medicine is without a peer." Same to you, Brother.

—

Dr. R. Broughton, of Rockford, Illinois. has published a most useful little brochure, It contains statistics concerning the devastation of the alcohol habit with which every physician should be familiar. Doubtless a copy of this little booklet can be procured from the author without charge. Try him, anyhow.

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We have just learned of the death of Lord Lister, who, as plain Joseph Lister, applied Pasteur's newly discovered theories concerning microorganisms to surgery, becoming thereby the "father of antiseptic surgery." That was not so many years ago. What marvels our surgeons have accomplished during his lifetime. Next month we shall have an appreciative editorial sketch of Lister.

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According to the Paris letter to the *Wiener Medizinische Wochenschrift*, 1911, No. 36, 2276, the 1910 edition of the French Codex contains so many changes from formulas of earlier editions and gives the maximal doses so high that a commission appointed by the Therapeutic Society has protested against it and has demanded that the edition be withdrawn and revised. The Paris Academy of Medicine also intends to insist upon a revision.

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Dr. C. F. Abbott, of Elmira, New York, desires information concerning, first, the occupations followed by physicians as a side-line, and, second, the vocations followed by physicians outside of medical practice and in which the physician has made a success. We trust that every reader of our journal who knows of some instance of this kind, in either of the classes mentioned, will communicate with Dr. Abbott, address 201 Main St., as above.

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The University Medical College of Kansas City, Missouri, is offering to a number of institutions of college and university grade an arrangement by which the first two years of medical work can be taken at the latter institutions, the final two years to be taken at the University Medical College. This undoubtedly will encourage a larger number of high-grade college men to take up the study of medicine, will permit of the securing of both the bachelor's and the doctor's degree, and save to the student much valuable time.

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This month, on account of the very large amount of material on hand and promised early publication, we have been compelled to postpone several promised features. For instance, several of the serial articles had to be broken into smaller sections, and the regular monthly installments of one or two, including Dr. Moss's splendid Philippine story, were necessarily held over until next month. Be on the lookout for them.

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Now that the presidential year is on, and it promises to be a live year too, every doctor should plan to get a broad outlook upon the political situation. I don't know where you can get it better than through the columns of *The Outlook*, of which Colonel Roosevelt (Keep your eye on him!) is a contributing editor. Every

number of this splendid weekly is alive with interest, and from the literary point of view, it leaves little to be desired. The price is only $3.00 a year and it is published at 287 Fourth Ave., New York City.

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THE salary of Dr. Clifford G. Arbery, city physician of the town of Jacksonville, Alabama, has, according to press dispatches, been reduced to five dollars per year, and at the last annual meeting of the Calhoun County Medical Society his resignation was not accepted. We wonder whether, under the terms of the agreement, the doctor is forbidden to "indulge" in private practice, and whether he has to devote his entire time to the duties of his office. We also wonder what the salary of the city attorney—but that's another question. Comment is unnecessary.

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A NUMBER of medical men of Upper Manhattan and the Bronx have just orgainzed a new medical society under the name, Northern Medical Society of the City of New York. The following officers have been elected: President, Dr. William J. Robinson; first vice-president, Dr. A. L. Goldwater; second vice-president, Dr. Alex. Goldman; recording secretary, Dr. De Witt Steeten; corresponding secretary, Dr. H. Schumer; treasurer, Dr. M. Arenson. Meetings will be held monthly. Only members of the medical profession in good standing are eligible to membership.

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A BILL has been introduced in the New Jersey Legislature providing that "hereafter any legalized and regularly graduated physician and his assistants under his directions or instructions shall have the right to prepare, dispense, or put up or sell any drugs or medicines for the use of his patients or patrons." We understand that this bill has been introduced on account of certain provisions in the state food and drugs act which interfere with the physician's freedom in his dispensing work. Be on the lookout for such legislation.

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WE have just received a beautiful little booklet called "My Lady Afoot," with the suggestive subtitle of "The Art of Walking for Health, Grace, and Beauty." This little book is so full of helpful suggestions which doctors should know and which they may well pass on to their patients that we take this occasion to advise every reader of CLINICAL MEDICINE to write to O'Sullivan Rubber Company, 131 Hudson St., New York City, for a copy. Yes, it is an advertisement, but some of these "advertisements" are worth keeping and reading.

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HON. RICHARD BARTHOLDT recently introduced the following resolution (H. R. 220) in the present Congress. It reads as follows:

RESOLVED, That the Committee on Education be, and the same is, hereby authorized and directed to cause an investigation to be made by the Committee on Education, or a subcommittee thereof, touching the practicability of the study of Esperanto as an auxiliary language and a means of facilitating the social and commercial course of the people of the United States, and those of other countries, the committee to submit its report at the second session of the Sixty-second Congress.

In view of the interest created by the discussion of this subject, the Esperanto Association of America is planning to distribute one million copies of "A Glimpse of Esperanto." This pamphlet will outline the purpose of the international language and give a general synopsis of the grammar. Any reader of CLINICAL MEDICINE can secure a copy by sending a postage stamp to The Esperanto Office, Washington, D. C.

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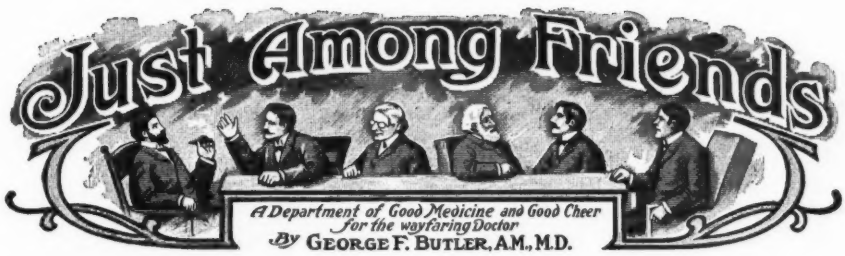
INFANTILE paralysis in the last few years has assumed greatly increased importance from the standpoint of preventive medicine. Our friend, Dr. Guilford H. Sumner, secretary of the Iowa State Board of Health, shows in a recent bulletin the increasing prevalence of this disease in the last thirty years throughout the world.

YEARS	CASES	OUTBREAKS	AVERAGE NO. CASES
1880–1884.....	23	2	11.5
1885–1889.....	93	7	13
1890–1894.....	151	4	38
1895–1899.....	345	23	15
1900–1904.....	349	9	39
1905–1909.....8,054		25	322

It is said that 80 percent of these cases occurred in children under ten years of age. According to recent writers, the disease is infectious and can be carried both by sick and well for a long period of time. It is probably also spread by flies and other insects.. The infecting organism is invisible under the microscope.



WHAT a man will do for money depends on what he is. The motive itself is complex, for misers are freaks, and the rest of mankind wants gold to pay for its pleasures. Moreover, one person may be critical concerning orchids, champagne, and Italian opera; while another asks but victuals, drink, sleep—pleasant things in their way—and, for delight, gossip at the market-place, or a day with Jill at the fair.

For the simplest living a man will wait on tables, sell cloth, or run a trolley car. He will delve in trenches, drive cows, fell trees in the far, frosty woods—just for a living. His fun is limited; yet all his life he will do this, simply because it is the job at hand and pays for his bread and cheese—and kisses maybe.

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If one has wit with a leaven of fancy his resources rise and he asks for more. Since the world likes to be amused, some will forthwith get upon a stage and twiddle their toes to the twang of strings, with an occasional high kick and engaging disordering of draperies—which accentuate pleasure. Another shakes the air with sweet sounds, and, if she be fair, you and I are content to pay hard coin for the song. These people have got through toiling for daily bread, and now they are hustling for pie.

Yet the lavish world is also shrewd, if one finds great pleasure in his work. And if there is any show of a reward in heaven, the world will discount that, too, and pinch his pursestrings accordingly. That is the trouble with a man who writes books or runs a newspaper. He is paid in hope and glory.

Withal, the dear people will pay cheerily to be humbugged. The man who discovered this grew rich; and Barnum's disciples fill the land. They tell fortunes and display freaks; they sell fake pills, Christian-Science prayers, ghostly interviews, oil wells, copper stock, pointers on the races. They play the whole gamut of human followers.

Their first cousins are folk who pose as reformers; for whose art, indeed, some natural endowments come in play—the wise solemnity, the goo-goo eyes, the impressive tone. Have you seen these gentry with masks off, after the hat has been passed? There are dollars in the business.

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Truly, a proper wit may acquire great gain. It was the secret of Solomon's success; and he died wealthy, after enjoying all kinds of sport. Solomon accumulated bric-a-brac galore, peacocks and ivory and monkeys and sundry other curiosa, besides a lot of gold, and enough wives to give him three hundred different kinds of housekeeping. It would perhaps be irrelevant to remark that there is wisdom to burn in this country—and also thousands of extra old maids. I am, however, considering what a man will do for money and not the way how to accumulate old maids.

One may use his muscles to the limit; one may force his brains beyond; but men of both of these classes are apt to draw a line. They expect their pay as they go, amid the environments and comforts of civilization. Only once in a while will a man step over the boundary of the commonplace to dare public opinion, flout the sting of present poverty, or take his life in his hands and go the way of danger.

But grant this element of courage, and we have the man who explores the unknown; who, in taking chances for his own

good, adds new arts or new regions to the domain of mankind. Remember Goodyear; remember Palissy the potter. Through years of poverty, adverse fate, and obloquy they struggled, till at last they and the world were richer for the germ of the great rubber industry and for the secret of a famous enamel.

Remember the forty-niners!

—

There will always be men to tempt the game of life with high stakes. And first of all they deliberately forswear pleasure, and comfort, and social joys. They are lonely men.

Did you ever climb the Chilkoot Pass? It was a grand charge into the wilderness. Perhaps the man who dared was envious of those ahead of him; but when he passed that way sixty of them had been buried in an avalanche. It sobered him; but he went on into the unknown. Then the Yukon stretched away, six hundred miles toward the Polar star; and after he had shot the mad white torrent of Miles Canyon and White Horse Rapids he knew that these were just the beginning of danger. After that he accepted perils and deprivations and heart-breaking toil quite as a part of the day's work.

The wintry night came on, when the sun was lost for months. The solitude of the eternal mountains brooded upon him; the deadly breath of the North Pole beseiged his life, and hope was deferred.

Men died, whose hopes were just as fair. They met grizzlies in lone defiles, and their names were blotted out. The rapids sucked them under. The ice broke. They starved.

And, in all, those who failed were more than those who won. Yet they know it is good to have dared. Does anyone call the motive sordid?

That is a superficial judgment. The man who takes chances on life is not avaricious; he is thinking of the old folks, of wife and babies, or of his far-away sweetheart; and his sacred word is "home."

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This is no fanciful touch of sentiment. If you lived as a man of the wilderness you would find it the literal truth. He is always talking of a "homestake." At night, beside his campfire in the mountain wilds, his purpose and his ideal hold full sway and brace his strength for the grim future.

"All that a man hath will be given for his life"—but his life itself he holds at the call of something still dearer. And oftenest, and best of all, that is Love.

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Delirium is a condition of cerebral disturbance often of grave omen; always more or less alarming. It is much commoner in children than in adults; and is much easier induced in children and by lesser exciting causes than it is in adults. It is more readily brought about in persons of a nervous diathesis than in others. Delirium is very common in fevers, and still more so in the exanthemata, especially in scarlet-fever. It arises, under these circumstances, from the combined effect of the fever-poisons, the toxemia, the excited circulation, and the elevated temperature. When, however, delirium occurs in the later stages of continued fevers, where the typhoid condition is pronounced, then it is due in a great measure to the amount of tissue waste present in the blood.

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In the early stages of fever, delirium is scarcely serious in the young. Its import is grave, however, if the person be an adult, and still more so in an old person, whose brain is, usually, not easily perturbed. When delirium occurs in the typhoid condition, it is serious, and frequently it passes into coma and death.

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In the management of delirium, a number of points are to be carefully attended to.

One of these points—and a most important one—is the partial prevention of the oncome of delirium by avoiding what is calculated to excite it. This is a matter not sufficiently attended to by some doctors. When a person is severely ill and the mind has a tendency to wander, then little changes in the environment become more than usually important. If the aspect of the room is much altered the wandering eye and unstable brain, especially when awakened from slumber, fail to recognize the altered surroundings. The first im-

pulse is to escape from the (to him) strange place, and to "get home"—an instinctive feeling when one is very ill. As a result, an outbreak of delirious violence occurs, which leaves the patient exhausted and powerless.

It is not this alone which is to be avoided —though it is not without its own importance—but it is the uncomfortable feeling which remains in the patient's mind that those around him are opposed to him and hostile to his interests. What the patient wishes to do is to him quite intelligible and perfectly proper to do; and when he finds that instead of being aided by those around him—his friends and relatives in whom he has always trusted—they thwart and oppose him, a sickening feeling of suspicion pervades the mind; a state of things most undesirable. If it is impossible to accede to the patient's requests, the attendant must meet them by cajolement, rather than by active resistance and the force of brute strength.

Thus it is a matter of moment, when an adult is ill and likely to be delirious, not to change the aspect of his room much, even though the ailment be an infectious one. The exciting of delirium, with its effect upon the patient, must be set against the possibility of infection being conveyed by the ordinary furniture of the room when permitted to remain in it. With children it is of less moment, and every removable and unneeded article may be advantageously taken away. So much for the psychic side of the management of delirium.

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The actual therapeutic management rests much upon the circumstances of the case and the conditions with which the delirium is associated. If there is cerebral hyperemia, depressants and sedatives are clearly indicated. If there is also a febrile condition, antipyretics and other means of lowering the temperature must be adopted. If the skin is dry and perspiration suppressed, agents which excite free action of the skin may be resorted to; or the temperature may be lowered and heat extracted by the external and internal employment of cold. With the head on a pillow of cold water and an ice-bag to the head, sleep can often be induced in the delirious and excited patient. An ice-cap is a very useful means of cooling the head. When the patient is wrapped in wet sheets or placed in a proper bath and cooled down, the delirium passes away and reason resumes its seat, showing that this mental state is largely a question of temperature in the blood and brain; the return of the delirium along with the rise of temperature completes the argument.

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Another point is the state of the pulse. If feeble, soft, and intermittent, digitalis and potassium bromide in combination are indicated. If full and bounding, or incompressible, chloral hydrate or the bromides, together with the depressants, such as aconitine or veratrine, are the agents to be resorted to. In delirium tremens, large doses (as much as a half ounce) of the tincture of digitalis have been given. This plan, I will say, is only safe when the heart is very feeble or failing and the cardiac ganglia are nearly exhausted. I have never tried this method of treating delirium tremens.

When delirium occurs in a typhoid condition, no matter whether connected with a specific fever or not, it is desirable to procure a more perfect depuration of the blood by the use of potassium bitartrate or by frequent doses of a saline laxative, until the bowels are opened; or by acting carefully on the bowels or the skin, according to the circumstances of the case.

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Subcutaneous or rectal injections of chloral hydrate may be useful when the brown furred tongue indicates that a layer of dead epithelial cells lines the intestinal canal and hinders absorption through it; so that it is useless to give remedies by the mouth.

It is always well, first to clean out the alimentary tract, as much of the delirium in many of these acute diseases is due to toxemia. It can be greatly lessened by thorough evacuation of the bowel.

If chloral hydrate is given subcutaneously, the injection should not ordinarily be stronger than 10 grains to the ounce, on account of the local disturbance to which stronger solutions so often give rise. It is much better practice first to clean out the

alimentary canal and to employ cold or moderately warm baths, and then, if necessary, to give the chloral or some other cerebral sedative by the mouth.

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At other times a special form of delirium is met with after the acute pyretic stage is over. It seems to be rather a form of cerebral exhaustion than a form of active delirium.

Stokes enumerates three such conditions. First, where there is persistent wakefulness; second, where an inflammatory condition of the brain has existed and been subdued, but delirium and other nervous symptoms still remain; third, where an excited state of the sensorium exists without beat of scalp or remarkable throbbing of the arteries of the head. To these Copland adds the condition of there being free discharges or unrestrained evacuations. In all these conditions opium (or some of its alkaloids) is indicated. According to circumstances, it might be combined with chloral. In coma vigil such combination is specifically indicated. In children the chloral might be given in connection with potassium bromide.

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I believe that those books that we need most many a time come to us mysteriously, at the very moment when we are most inclined to enjoy them. Some kindly law seems to govern the opportunity for literary enjoyment. Recently I have been reading the pathetic letters of Abelard and Heloise. Such tenderness of devotion as that of Heloise is hardly surpassed by that of the lamented Francesca da Rimini, of whom Dante speaks at the close of the fifth canto of the "Inferno."

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I was speaking of the books that I have read of late, and I have it in mind to mention a few gems that I would recommend to lovers of good literature.

I keep "Jean Paul" close by me, and I expect to find no greater in literature. *The* Paul, as the Germans call him—vast, overmastering, beautiful, and alone!

Not long ago I finished "Middlemarch." This is the third time I have read this story. The book is grand, gently cynical, but not wholly satisfactory to me. The utter absence of pedantry in one of the most learned of women writers is admirable. "Not that I hate women less, but that I hate men more"—something of this idea is coupled with the recollection of characters not one of whom but presents blemishes—if we except Mary Garth—upon which it is little comfort to dwell in the absence of all ideality. We, all of us, know people who do approach perfection as compared with our own achievement, and in a work of art there should be at least one such personage, for the sake of that repose which is essential to all true art. The exact, realistic treatment of mankind does not necessarily exclude the *good*—and here I think is George Eliot's error, in that she paints strictly by rule and ignores the more ennobling *exceptions*.

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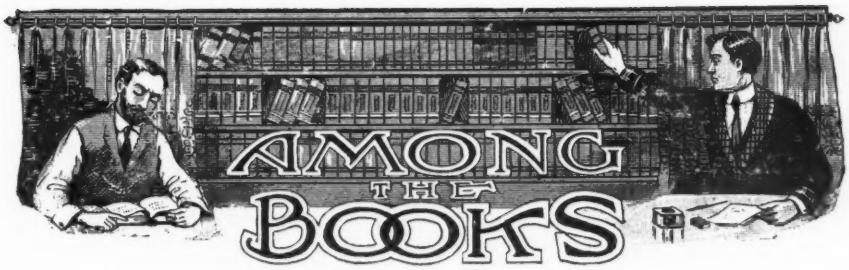
Hawthorne is one of my favorite authors. With Hawthorne all was genius, even to the felicity of expression, for he divined the use of language intuitively and wielded our Saxon tongue with subtlety and power unequaled in his sphere of thought. While not as scholarly as some of his contemporaries, he possessed the delicate intuition and spiritual element of intellect which few of his contemporaries could, by any possible, miracle, attain. One should read Hawthorne carefully, if he would know our language and see how the most evanescent emotions can be caught by a master-mind and held captive to its fine discernment. "The House of the Seven Gables" and "The Marble Faun" should be, if they are not, the wonders of the present generation; nor will it ever wholly know whether these masterpieces are the result of nature or of art, or are due to the happy union of both, for Hawthorne was *sui generis* and not to be referred to ordinary standards of criticism.

If you are fond of fine literature—books that touch upon the best of human existence, let me advise you to read some of the following: "Chronicles of Carling Ford," "St. Olave," "Doctor Antonius," "Corinne," "Pilgrims of the Rhine," "On the Heights," "L'Arabbiata," "Mill's Posthumous Essays."



ALGER'S "REFRACTION"

Refraction and Motility of the Eye, with chapters on color blindness and the field of vision. Designed for students and practitioners. By Ellice M. Alger, M. D. Philadelphia: F. A. Davis Company. 1910. Price, $1.75.

In a careful reading of this book I have been highly gratified to find that it is a most thorough and practical treatise on the subjects handled. It will prove especially useful to the general practitioner, for whom the author has written it.

In this modern age the patients are going to the physician, for relief from their troubles, more than ever before. It is, then, most necessary for the general practitioner to inform himself upon the best methods for the correction of errors of refraction and abnormal motility of the extrinsic muscles of the eye. The physician of the present day, to be successful, must exhaust every possible means of diagnosis; and this means that he must know how to make an ophthalmoscopic examination of the fundus of the eye. It is to satisfy this great need that this book is presented to the general practitioner as well as to the specialist of whatever line he may be in.

The author takes up the fundamental principles of optics and refraction, and elucidates them tersely and concisely. Two great classes of patients ask about their eyes: namely, those who need glasses simply to improve their vision, and those who come to be relieved of headaches or reflex troubles. With a thorough study of this book the physician can perfect himself in this work, rather than allow his patients to go to the itinerant optician or department-store clerk for his glasses. There is a fine chapter on "the ideal eye," for one must know the normal before he tries to study the abnormal. Then follow several chapters on the most thorough and systematic method of all points that should be accurately tested and recorded.

The list of subjects covers practically the entire field. One of the chapters presents explicit and practical details of technic of making the necessary examinations. The chapter on retinoscopy is excellent, and the physician who can master this method will find it the keystone of doing high-grade refraction. In the chapters on motility, the author gives thorough details as to the proper testing of muscular troubles, that is, strabismus, convergent and divergent, and, most important, of how best to care for them intelligently. The author shows his thoroughness in that he has presented chapters on color-blindness and the field of vision, the latter being most important to the internist and the neurologist, for upon this test depends an accurate diagnosis of many conditions.

LORENZO N. GROSVENOR.

PARKER'S "DISEASES OF THE EYE"

Handbook of Diseases of the Eye. A text-book for students and practitioners. By Harry Caldwell Parker, M. D. Philadelphia: F. A. Davis Company, Publishers. 1910. Price $2.00.

The author has written this volume for "the student and practitioner" and states that "all unnecessary details have been omitted." Herein I believe the author has made a great mistake, especially in the early chapters. The chapter on anatomy is so

robbed of details as to be very crude and to need most careful revision. The chapter on bacteriology is good, as far as it goes, but here lack of detail spoils it. If you want to help the busy practitioner to improve his methods, you must show him how in detail. There should be details given as to how easily and quickly one can make bacteriological tests in the office.

In the next chapter, on "The Examination of the Eye," the author, again, fails to give sufficient details. Years of experience in teaching, not only undergraduates, but postgraduates, has impressed this reviewer with the fact that most thorough and complete details of technic, of practical work in ophthalmology, must be given the student. For instance, as to the eversion of the lids and displaying the retrotarsal folds; or, as to the examination of the cornea, iris, lens, etc., or as to the use of the ophthalmoscope and the examination of the fundus. The author should cover these points of technic most thoroughly and carefully; then the doctor will go and do it, and quickly perfect himself in the work. But if no details are given, he just naturally "passes on" and forgets it.

The chapters on refraction and muscles of the eye are excellent and cover the subject very concisely, without waste of words.

The rest of the book is given up to the diseases of the eye and their treatment. These chapters are well written, although very tersely and concisely, and well illustrated.

LORENZO N. GROSVENOR.

HUGHES'S "PRACTICE OF MEDICINE"

Hughes's Practice of Medicine, including a section on mental diseases and one on diseases of the skin. Tenth edition, revised and enlarged. By R. J. E. Scott, M. A., M. D. With 63 illustrations. Philadelphia: P. Blakiston's Son & Co., 1911. Price $2.50

Hughes's Practice of Medicine, which has just appeared in the tenth edition, is well known to physicians, and hence does not need an introduction at our hands. The present edition has been enriched by new sections on pellagra, glandular fever, and several others of more recent import, and as a book of reference gains decidedly through the inclusion of chapters on diseases of the skin and on mental diseases. The discussions are brief and concise, and the treatment is conservative. The volume will be found useful for rapid reference, when in doubt, this being greatly facilitated by the very complete index.

MUSSER-KELLY'S "PRACTICAL TREATMENT

A Handbook of Practical Treatment. By many writers. Edited by John H. Musser, M. D., LL. D., and A. O. J. Kelly, A. M., M. D. Vol. III. Philadelphia: W. B. Saunders Company. 1911. Price, cloth, $6.00 net.

This volume completes the excellent three-volume handbook of practical treatment, the two preceding ones of which were noticed in CLINICAL MEDICINE for July, 1911, page 808, and for February, 1912, page 226. The present volume covers the subjects of constitutional diseases and of diseases of the respiratory, digestive, urinary, nervous, and muscular systems.

Those readers of CLINICAL MEDICINE who have followed our editorials for the last ten and more years will understand a feeling of gratification in observing the constantly and increasingly insistent attention that is being paid to the importance of autointoxication, especially of intestinal origin, in present-day medical literature, as it attaches not only to the etiology of many diseases but also to their treatment.

This gratification yields somewhat to amusement, though, when we note that all sort of writers are given credit for laying stress upon this important factor, while we, meaning the "Clinic" school, are calmly and persistently ignored. Fortunately we care too much for the thing itself to insist on calling attention to the fact that for many years we were, in this respect, as a voice of one crying in the wilderness, and only record with satisfaction that throughout the volume under consideration the importance of attending to irregularities in the gastrointestinal canal, in the treat-

ment of the most varied diseases, is constantly emphasized.

It is commendable that drug treatment is generally receiving greater attention than it has in the immediate past, and that drugs, where they are advocated, are not merely mentioned as "reputed" to serve, but are in most instances supported by the actual experience of the authors. True, owing to our particular bias in therapeutics, we do not always agree with the authors, believing that we could improve upon many of the drug treatments offered, principally by simplifying them; nevertheless, as a whole the therapeutic discussions are highly acceptable and decidedly of value to the practician.

The reviewer was interested in Wagner's application of soft-rubber splints for the reduction of turbinal hypertrophies (page 131); also in the use of diphtheria antitoxin for the relief of asthmatic attacks (page 184). To the remarks on the use of viscum album in hemoptysis (page 192) he desires to add that it is only the European mistletoe (viscum album) that appears to be a vasomotor dilator. The American mistletoe (phoradendron flavescens) is not applicable in hemoptysis, because it increases blood pressure.

By way of criticism, it may be said that the drug treatment of constipation can usefully and safely be extended far beyond the suggestions found in this volume (page 455 and following), and the reviewer ventures to mention that he has found large doses of the bile salts to supplement the action of laxatives and cathartics remarkably well and to render eventually the use of the latter unnecessary.

The treatment of the diseases under consideration in this volume is based upon the latest researches and investigations and affords an excellent guide and a fund of suggestions to the practitioner. We are glad to see that the text is conservative throughout and free from overenthusiastic or half-baked assertions.

BUTLER'S "ECHOES OF PETRARCH"

Echoes of Petrarch. A Book of Love Sonnets. By George F. Butler, A. M., M. D.

Perhaps the best expression that can be used regarding the duty of a sonnet is to say that it must "delight." The perfect sonnet has, indeed, a secondary effect upon the mind, in that it excites the admiration of the reader; but this pleasant consideration is almost necessarily a sequence of the first. A fine sonnet is never an accident, any more than is a jewel whose quality has been revealed by the wisdom of its facets. A lapidary must have been at work. The delight comes from the thought revealed; the admiration, from the manner of expression.

Consider what the sonnet is. Originating in Italy, near the time when the Dark Ages were disappearing under such lights as Boccaccio, Dante, and, later, Petrarch, it was a device in poetical form, which, while in a way restrictive, was, nevertheless, upholding. It must express only a single, central thought; it must consist of but fourteen lines arranged in a particular way—though here certain inflections are allowed—and it must have no other setting. Mark what followed. The sonnet was reserved for artists. In or under the hands of others it became a folly. Its form preserved it. Its demand was a single exquisite fancy—and the one to express it.

Of course, the sonnet precludes grandeur, but grandeur is what we want occasionally. A great Turner painting is grandeur. The Mona Lisa, recently stolen from the Louvre, was a sonnet done with a brush. It was a perfect sonnet, produced by one of the greatest of artists. There was the single idea, the compelling and absorbing thing, the inscrutable smile on the face of a woman. There you have a sonnet on canvas. But what a smile was required and what a hand at the brush! Who else could have made so much of a smile?

Andrew Lang knows the sonnet, and, in the United States, the late gifted H. C. Bunner, the editor of Puck, made it at once his greatest fancy and accomplishment. These have ranked among the masters of the sonnet of the present. As to "sonneters," they exist everywhere. In almost every issue of almost every maga-

zine appears what is called a sonnet, which fulfils the prescribed conditions of form, that is, as to the fourteen lines and the appearance of the rhymes in their proper order. Otherwise, the sonnet is absent. There is no jewel to the setting.

Because of one of the sweetest of love stories in the world's history—that of Petrarch and his Laura—the sonnet first attained its wide regard among those capable of knowing when verse is exquisite. There was never a sensual love between Petrarch and the fair woman who belonged physically to another; but, from his retreat at Avignon, where much of his great fame was made, he sent forth those sonnets in delineation of her charms and virtues which have made immortal the name of a woman who would otherwise have remained as obscure as she was doubtless excellent. She was crowned by this "Canzoniere"; and, incidentally, the sonnet as a form of rhyme expressing one degree of flame in poetic thought came fairly into its own. It has never lost its somewhat bounded seigniory.

"Echoes of Petrarch," the title of Dr. George F. Butler's recently issued book of sonnets, must needs be of some quality if it can presume upon such a title, and it may be said at once that there is no presumption. Dr. Butler is a writer of sonnets which are not misnamed, though the sonnet means, demandingly, conception and skill within a certain attractive radius of poesy.

The sonnets in "Echoes of Petrarch" are more than an exhibition of clever workmanship, because they have heart and imagination in them. There are novel conceptions and neat fancies among them; and these are requisite—these are among the sonnet's perquisites—but, above and beyond these exhibitions of mere keenness of perception, of literary opportunity of the moment, there prevails a tone of deeper feeling, which is nevertheless happily adapted to the sonnet's exigencies. They have the touch of one who himself must feel, and who has the rare gift of putting his tender fancies into words with no loss of all their dreaminess and delicacy. Passionate at times, but always with a flowerlike purity, the sonnets are a revelation of what may be accomplished in picturing the deepest and finest of emotions. They not only command the admiration of one who reads them, but compel a vivid interest as well, so perfectly are portrayed the bubbling impulses of the human heart and its sometimes almost unrestrained demands.

In her "Sonnets from the Portuguese," where Mrs. Browning gave free and wonderful rein to a love no longer bound, the sonnet seemed to have reached its sensuous perfection. Dr. Butler has accomplished a thing as exquisite, though in a different tone. Blue skies shone on her work, on his shine skies of purple.

That this book of sonnets will at once find and hold a high place is beyond all question. It will become a treasure to those who understand. It is a perfect gift-book. The gifted author is to be more than congratulated for the addition he has made to tender literature. These sonnets can bear their title, "Echoes of Petrarch."

The book is published by The Ralph Fletcher Seymour Company, Fine Arts Building, Chicago; price $1.25.

STANLEY WATERLOO.

Chicago, Ill.

MUENSTERBERG'S "PSYCHOTHERAPY"

Psychotherapy. By Hugo Muensterberg, M. D., Ph. D. New York: Moffat, Yard & Co. 1909. Price $2.00 net.

Professor Muensterberg is, undoubtedly, the foremost authority in this country on psychotherapy and enjoys an equally prominent reputation abroad. In the present volume he has set himself the task of elucidating and clearing up the chaotic character of psychotherapy in the first decade of the twentieth century by explaining, in detail, its exact nature. We are at once attracted by the first sentence, that psychotherapy is the practice of treating the sick by influencing the mental life. Of course, we knew this in a somewhat hazy way; but when we read immediately afterward that psychotherapy is sharply to be separated from psychiatry—the treatment of mental diseases—it is brought home

to us that the study of this (in a manner) new branch of therapeutics is by no means the exclusive property of alienists, that in fact internists must be up on it just as much, if not more.

Dr. Muensterberg is not a practising physician and does not write exclusively for physicians. His life's work has been, and is, psychological research, and, as he tells us in the preface, he refuses for psychotherapeutic treatment any case which has not a certain scientific interest for him. His practical work has strictly the character of laboratory research. Nevertheless, the book contains much of practical utility, and many case-records illustrative of the teachings are presented. As a matter of course, the author touches upon the Emanuel movement as well as upon the tenets of Christian science, and similar cults, without, however, directly antagonizing them, since he sees the element of truth in all of them. He claims, justly, that scientific medicine should take hold of psychotherapeutics now, lest a most deplorable disorganization set in.

The book is divided into three parts, which deal, respectively, with the psychological basis of psychotherapy, the practical work of psychotherapy, and the place of psychotherapy; in the latter the relation of psychotherapy to the church, to the physician, and to the community are discussed.

Books like the present one certainly should obtain a willing hearing by the medical profession, as the vital importance of the subject can no longer be repudiated or neglected.

GOULD'S "POCKET MEDICAL DICTIONARY"

Gould's Pocket Pronouncing Medical Dictionary. Sixth Edition Revised. By George M. Gould, A. M., M. D. New York: P. Blakiston's Son & Co. Price $1.00.

This latest edition of Gould's well-known little pocket dictionary has been enriched by 4000 words over those contained in the 5th edition, issued in 1910. The work is sufficiently well known and hardly needs our recommendation. The latest medical terms are mentioned and defined very completely. Nevertheless, we miss reference to scarlet-red (amidoazotoluol,) which has been in use more or less for at least two years.

The little book is handy, inexpensive, and well worth buying from one edition to the other.

O'REILLY'S "PHYSICAL DIAGNOSIS"

A Manual of Physical Diagnosis. By Brefney Rolph O'Reilly. M. D., C. M. With 6 plates and 49 other illustrations. Philadelphia: P. Blakiston's Son & Co. 1911. Price $2.00.

For its size, this treatise offers a very complete discussion of the physical diagnosis in diseases of the respiratory, circulatory, digestive, genitourinary, and neuromuscular systems. Examination by inspection, palpation, percussion, auscultation, and the other recognized methods is supplemented, especially for diseases of the neuromuscular system by electrodiagnosis and investigation of the motor and sensory functions. The appendix discusses the proper examination of the urine, blood, sputum, gastric contents, feces, and serous fluids, as well as the detection of bacteria and protozoa that are responsible for numerous infectious diseases.

MALSBARY'S "DIAGNOSIS OF SYPHILIS"

Diagnosis of Syphilis. By George E. Malsbary, M. D. Cincinnati: Harvey Publishing Company. 1911. Price $5.00.

At the present time, when not only physicians but the public in general are fully awake to the dangers of the venereal problem, a far more exact study and knowledge of syphilis than is commonly possessed by the general practitioner has become a necessity. It is high time that the treatment of venereal diseases be taken from the irresponsible and frequently ignorant quack and that physicians at large devote to it the same care and study that they accord to other affections. Every aid to this end must, of course, be accepted gratefully, and hence, physicians are indebted to the author of the work under

consideration for having described at great detail the principles which will enable us to recognize a malignant malady more protean in its clinical presentations than even tuberculosis.

That the author has investigated the literature on this difficult subject most thoroughly, is evidenced by the appended bibliography, which occupies not less than 116 printed pages. His treatment of the laboratory diagnosis of syphilis is properly brief, because this is possible only after special training in the course of which the necessary details and technic are acquired as a matter of course. The special diagnosis, that is, the diagnosis of syphilis of special organs, occupies the greater portion of the volume and is presented in a clear and concise manner.

Concerning the question of heredity, the present reviewer is constrained to express regret that the author neglects to point out that both Colle's and Profeta's laws have recently been disproved. Apparently healthy mothers of congenitally syphilitic children are not immune to syphilis, inasmuch as they are syphilitic, while apparently healthy children of syphilitic mothers are syphilitic themselves. An excellent review of the literature in point was presented, by Dr. Arthur Stein, to the German Medical Society of New York City, at its meeting on May 1, 1911.

MALTBIE'S "PHARMACY"

Practical Pharmacy for Pharmacists and Physicians. A Textbook for Students in Medicine and Pharmacy. By Birdsey L. Maltbie. Newark: Physicians' Drug News Company. 1910. Price $2.00.

This little work is of considerable value to the physician who is obliged, or wishes, to dispense his own remedies. In short and concise paragraphs it deals with the various problems of pharmacy, of the preparation of medicines and prescriptions, and also with the most important drugs. The book is not claimed to be a complete treatise on pharmacy, but a condensed presentation providing the essentials for ready reference. To the pharmacist as well as to the dispensing physician it will be a welcome acquisition for the work-table.

CRANDON'S "SURGICAL AFTER-TREATMENT"

Surgical After-Treatment. By L. R. G. Crandon, A. M., M. D. Octavo, 803 pages; with 265 original illustrations. Philadelphia: W. B. Saunders Company, 1910. Price, cloth, $6.00 net.

The after-treatment of surgical operations frequently determines either their success or their failure. This important consideration, unfortunately, is all too often neglected in the textbooks on surgical technic, being frequently more or less relegated to internes and nurses. It is as if, with the last safety-pin inserted into the bandage, the interest in the "case" has died down, and subsequently both undergraduate and postgraduate students are in the habit of merely inquiring casually after this or that patient on whom they chanced to witness an important or interesting operation done.

For these reasons the author of the present book was fully justified when he considered the subject of surgical after-treatment of sufficient importance to make it the basis of a special treatise. He takes up successively the following subjects: The sick-room; after-treatment of anesthesia; thirst; pain; pulse; temperature; respiration; shock; coma; diet after operation, and all that this implies; treatment of wounds, both clean and septic. In addition, he discusses a mass of other matters that arise during recovery from operation.

In the second part the after-treatment of special operations is discussed, while an extended chapter treats of the interesting subject of therapeutic immunization and vaccine therapy. We hope that we have sufficiently stimulated the curiosity of our readers to make them wish to possess this excellent book.

INTERNATIONAL CLINICS

International Clinics. Volume IV. Twenty-first series, Philadelphia: J. B. Lippincott Company, 1911. Price $2.00. A very interesting volume.

PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWER TO QUERY

ANSWER TO QUERY 5765.—"Morbid Drowsiness." A year or two ago Dr. Musgrove, of Sultan, Washington, told me of a remedy for morbid drowsiness, not due to discoverable causes, which I have tried, with excellent result, in one case similar to the one reported and discussed on page 120, in the January issue. The plan is to give 6 grains of ammonium chloride every four hours. In suitable cases, it is claimed, this acts magically, removing the morbid condition in a few days. I do not know its mode of action. If tried by others, I should be glad to learn the results.

E. W. Cox.

Monroe, Wash.

QUERIES

QUERY 5778.—"Insufficient Evidence of Syphilis." F. W. B., Missouri, has been asked by a young married man 29 years old, "Can you cure syphilis (third stage) of six years' standing?" "Patient has bone pain in shoulders, arms and back, worse at night and in rainy seasons. Says he has taken more potassium iodide and mercury 'than a mule can pull.'" Has no discharge and never had. He says, 'I never let it come to that.'" Our correspondent describes this man as weighing about 125 pounds and apparently in good health.

Before you treat this man for syphilis, be very sure that he is syphilitic. We should certainly expect more manifestations of the infection than "bone pains in shoulders and arms, worse at night and in rainy seasons." Considering the large quantities of potassium iodide and of mercury your patient is taking, he is probably autotoxemic, and a course of eliminants is quite apt to work a wonderful change for the better.

If the young man wants to know definitely whether he is or is not syphilitic (remember that syphilophobia is a very common occurrence), have a Wasserman test made. If the report is positive, it will give us pleasure to outline specific treatment; if negative, we will make therapeutic suggestions, which will, we feel sure, prove effective.

In the meantime, Doctor, clean out the patient thoroughly. Give your patient blue mass and soda, podophyllin and iridin, half-hourly for four doses every third night, and the next morning let him take a laxative saline. Give sulphur, podophyllin, and rhein twice daily after meals. Instruct the young man to bathe the entire body three times a week with warm epsom-salt solution (one ounce to 2 quarts of water). Iridin may be pushed advantageously.

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QUERY 5779.—"Glaucoma." R. V. P., Oklahoma, is attending a big, rugged man

43 years of age who now, apparently, is enjoying rugged health. Five or six weeks ago, while making a 30-mile trip in a buggy, this man noticed that he could not see well; something like heat-waves or cobwebs kept floating before his eyes and interfered with his sight. These "cobwebs," he declared, bothered him constantly for two weeks and he began to notice that his sight was getting steadily poorer. The cobweb-sensation stopped in about two weeks, but the sight kept on failing, until now he cannot read at all—can see the lines, but cannot distinguish the letters. In appearance, the doctor writes, the man's eyes are perfectly normal, and he suspects glaucoma.

The report of our pathologist upon a specimen of patient's urine sent for examination shows elimination to be very poor. However, a competent oculist should be consulted at the earliest possible moment. We have not a clear enough idea of basal pathologic conditions to venture a diagnosis. However, we should stimulate renal, hepatic, intestinal, and dermal activity. Glaucoma must, of course, be thought of, it being well to remember that there are two different types: inflammatory and simple.

In inflammatory glaucoma, there is severe pain—supraorbital, hemicranial, as well as ocular. Vomiting is not infrequent. There is more or less anesthesia of the cornea, prominence of the episcleral veins and pericorneal injection, and also the appearance of a "halo" showing rainbow colors about the flame of a candle or lighted match. When these attacks persist, failure of accommodation occurs, necessitating increase of strength of the glasses worn; this, perhaps, in connection with prolonged eye-strain, obscuration of vision, slight supraorbital pain and pericorneal injection. Sooner or later ophthalmoscopic examination will reveal a depression of the optic disk and the beginning of a glaucomatous cup.

In simple glaucoma, characterized by the persistent increase of the intraocular tension, there is no pain, no injection, no clouding of the media, and the pupil, though sluggish in its response to light, is but slightly enlarged. The first thing usually to attract the patient's attention to the symptoms is the failure of vision. This is an affection of advanced life, seldom observed in persons under forty-five, and it almost invariably attacks both eyes. Gout and rheumatism (i. e., acidemia) predispose to its development. Ophthalmoscopic examinations and perimetric tests of the field of vision are necessary to a diagnosis, but even with these tests it is not always easy to distinguish simple glaucoma from progressive atrophy of the optic nerve. It goes without saying that a skilled ophthalmologist should outline treatment.

In this connection, Doctor, we would call your attention to an extremely important and interesting article by Samuel Risley, which appeared in *Ophthalmology* for January. The title of the paper is "Intestinal Sepsis in Ocular Affections." Risley has proven to his own satisfaction that a clean intestinal tract is essential to success in such conditions. Many visual disorders disappear after a course with calomel, podophyllin and iridin, followed by magnesium sulphate and then the diligent use of the sulphocarbolates.

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QUERY 5780.—"Fuchin's Cancer Cure." J. R. A., Texas, requests us to give the formula of Fuchin's, or of any other good, cancer-paste.

Most of the pastes used by "cancer-doctors" contain either zinc chloride or arsenic in combination with powdered sanguinaria, cancer-root (orobanche virg.) or powdered galangal. A typical combination consists of equal parts of arsenous acid, vegetable charcoal, and powdered serpentaria, made into a thick paste with water when to be used.

Another formula, long held secret, and known as "Guy's arcanum," is: arsenous acid, flowers of sulphur, hog's-fennel, and ranunculus sylvestris, equal parts of each, and made into a paste with water.

Hebra's paste consists of arsenous acid, 1 dram; mercuric sulphide, 3 drams; vaseline, 3 ounces.

A typical zinc-chloride formula is as follows: sanguinaria, 1 part; galangal, 3

parts; zinc chloride, sufficient. Mix the two powders and gradually add enough chloride of zinc to make a paste consistent enough to be formed with the fingers. A piece of this paste should be formed so as to cover the cancer and about one-eighth of an inch thick. Apply to the cancer and retain with strips of adhesive plaster and a compress. Change in twenty-four hours, and repeat until the tumor becomes devitalized. Then dress with basilicon ointment, and allow the slough to become detached without using traction.

We have described our own method of treating epithelioma, lupus, etc., many times in these columns.

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QUERY 5781.—"Mouth-Breathing." A. P., South Dakota, wishes to know whether there is any apparatus that can be worn to prevent mouth-breathing. For an answer to this question we refer to purveyors of surgical instruments. But we would remind the Doctor that this trouble nearly always is due to adenoids; and if these growths are demonstrated, they should be removed.

The present writer never has had any difficulty in controlling this condition, and, where an appliance is really needed, he uses a simple elastic bandage, passing it under the chin and over the top of the head, drawing it just tight enough to keep the mouth from opening readily. Such treatment is merely palliative, of course. For a cure, pharyngeal or nasal growths must be removed.

In the case of children, always look for worms. If there is indigestion, place the child upon an easily assimilated and nutritious diet. Forbid food for three hours before retiring.

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QUERY 5782.—"Tinnitus Aurium." A. O., Illinois, has a case of tinnitus aurium which is rather rebellious. The patient, a clergyman 40 years old, is perfectly healthy, though possibly a little nervous. His hearing is normal. He has lived in Illinois about two years, coming from Minnesota, and he gets the ear-ringing whenever he comes to Illinois, while in Minnesota he is free from it. All remedies tried have failed.

Tinnitus aurium is so distinctly a symptom that it would be impossible for us to outline an effective treatment without a clearer understanding of the causative conditions. In a general way, it may be said that in suppurative otitis and in some catarrhal conditions preparations of the suprarenal glands have proven efficacious. In tinnitus due to circulatory disturbances, cactin and strychnine valerate have proven satisfactory. When the symptom is connected with myxedema, then thyroid gland is indicated. Since in the present instance the trouble appears only under certain climatic conditions, we may suspect an underlying catarrh.

Examine thoroughly the auditory and nasal passages. You might advantageously syringe the patient's ear with dioxide of hydrogen solution, following with warm mixture of glycerin and water; then dry the canal and instil one drop of an oil solution of thymol iodide. If there is congestion, small doses of gelseminine every two or three hours and the application of adrenalin chloride might be tried. Note the circulatory conditions and whether the patient is autotoxemic. Give us all the light you can, and we will cheerfully aid you to the extent of our ability.

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QUERY 5783.—"Condurangin in Cancer." C. F. K., Iowa, wishes to know how condurangin should be given in epithelioma.

The remedy named is not likely to prove beneficial in epithelioma, its most effective field of action being in the earlier stages of gastric cancer and gastric ulcer. At one time condurango was lauded as a remedy for cancer, syphilis, and scrofula. Many years ago, the mother of Vice-President Colfax was alleged to have been cured of cancer by this drug. At that time the condurango bark was sold for as high as one hundred dollars a pound. Later, Mrs. Colfax died of cancer, and then adverse reports came in from all over the world, as a result of which the remedy fell into disrepute.

Condurangin, the active principle, however, unquestionably is of value in some

forms of internal (gastric and esophageal) cancer. Under its use, pains are materially reduced, the appetite improves, vomiting ceases, and often there is a gain in weight. Though material relief is secured, most of the patients ultimately die of the malady. The ordinary dose of condurangin is 1-10 to 1-2 of a grain three times daily. Some clinicians recommend 1-64 grain to be injected hypodermically into the substance of a cancerous tumor, this dose being increased to four or even six times this amount. In gastric ulcer condurangin is of unquestioned value.

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QUERY 5784.—"Artificial Impregnation." A. C. R., Illinois, asks: "Is artificial impregnation very often performed, and is there a work published which gives in detail the mode of procedure? If semen has been exposed to the ordinary temperature of the room for two hours could it still be successfully used?"

We think we may safely state that artificial impregnation is but very rarely attempted. You will find the subject either ignored entirely or dismissed with a few sentences in most obstetrical textbooks. As a matter of fact, there is very little necessity for such a procedure. If uterine displacements are corrected and the cervical canal is dilated, correct posturing will almost invariably permit the access of spermatozoa into the uterine cavity.

The operation in question is, of course, simple, the semen being merely collected, from the posterior vaginal depression, in a perfectly sterile syringe and as promptly as possible injected into the uterine cavity. It is a question whether it would be wise to preserve the semen for any length of time. Under certain conditions spermatozoa remain motile for several hours, but atmospheric bacilli might find their way into the seminal fluid and very serious results follow its injection into the uterine cavity.

A special syringe for the purpose can be obtained, the same being provided with an outer compartment, to hold warming water of blood-temperature. The seminal fluid is drawn into the inner chamber (the cervical canal having preliminarily been thoroughly cleansed), all air is expelled in the usual manner, and the contents thrown, drop by drop, high up against the uterine walls. However, no special instrument is necessary, since any sterile hard-rubber-nozzle syringe will serve the purpose. The attempt is best made three days prior or within the three days subsequent to menstrual period.

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QUERY 5785.—"Scabies, Prairie-Itch or Pruritus Hiemalis." H. P. G., Louisiana, is treating several children, aged from 1 to 14 years, who, he writes, have "common old itch and nothing will give them more than temporary relief. I have used sulphuric acid largely diluted (which relieves more than anything), emulsion of calamine, green soap, and various ointments, but all to no effect."

Are you quite sure, Doctor, that these little ones have true scabies, as you say? Pruritus hiemalis and several other dermatoses are quite frequently confounded with scabies. We have often written upon this subject, differentiating scabies from prairie-itch, the "digs," scratches, and so on.

We suggest that you wash the affected areas thoroughly with carbenzol or other antiseptic soap at night and then apply carbenzol oil. Wash off the next morning, and rub in thoroughly sulphur, preferably the solution. Twice a week give the affected youngsters calomel, podophyllin, and iridin, half-hourly for four doses at night, with, next morning, a saline-laxative draught. After each meal give sulphur, podophyllin, and collinsonin in small doses. Alternate, from week to week, with arsenic sulphide.

If you are dealing with true scabies, the burrows of the parasite must be opened up. The best procedure for this is to soak the skin in very hot water for twenty minutes, then, with an alkaline soap (sapo viridis) and a bristle brush scrub, thoroughly so as to break up the burrows. Then rub in the sulphur solution. If the whole body is affected, put the patient in a prolonged hot bath, scrubbing him thoroughly, and then change him over to a tub containing warm water and a pound of flowers of sulphur. The sulphur is taken up in the

hands and rubbed thoroughly into the body for some time. Rub the body dry, then have the patient get into a union suit into which sulphur has been thickly dusted. This is, we believe, the most effective cure for true scabies.

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QUERY 5786.—"Quinine Hydroferrocyanide." W. G. C., Pennsylvania, wishes to know what are "the therapeutic limits of quinine hydroferrocyanide", adding, "I have another case of tuberculosis and malaria and have placed the patient on that drug."

To a certain extent, individual conditions govern dosage of quinine hydroferrocyannide. In malaria, especially, comparatively large doses are tolerated. As a general thing, we give 1-6 to 1-3 of a grain, two hours and one hour before the expected attack, and often maintain the effect with a dosage of 1-6 of a grain three or four times a day. However, comparatively small doses suffice to check an attack of intermittent fever, such as would have no appreciable influence upon a healthy person. Some patients respond readily to two or three doses of 1-20 to 1-16 of a grain. Many clinicians consider small doses of quinine hydroferrocyanide equally as efficient as quinine sulphate in larger doses.

The drug, as you know, is a compound of hydrocyanide of quinine and cyanide of iron, possessing antiperiodic, antipyretic, sedative and reconstituent virtues, derived principally, perhaps, from the cyanide. As you are aware, cyanide of iron was for a time employed largely, but in the past few years has been in less favor. It was abandoned because of its insolubility in the gastric and intestinal juices.

It is true, the more soluble a remedy is, the more readily it is absorbed. Yet, we cannot endorse the old dictum that "substances do not act unless they are soluble"; for it has been definitely shown that tannate of quinine exercises distinct therapeutic effects, and cinnabar has been successfully prescribed in the scrofulous and rachitic diatheses. Chemical or physical changes, permitting of absorption, may take place in the alimentary canal. Apparently cyanide of iron becomes active when combined with quinine cyanide, although it is insoluble to a certain extent if administered alone. Comparatively large doses of quinine hydroferrocyanide have been given by European physicians, but, as we have stated, we have rarely found it necessary to exceed 1-3 of a grain.

In the severer forms of intermittent fever, 2 1-2 grains prove efficient. If the condition does not yield to such dosage, alternate the quinine hydroferrocyanide with the arsenates of iron, quinine and strychnine. A child under 10 may receive one to three granules of 1-64 grain. It must be remembered that the ferrocyanide is insoluble in water.

In pernicious and very severe forms of malaria, 1-6 to 1-3 of a grain may be given half-hourly. Merck states that 5 or even 10 grains may be given. Personally, we should not think of exhibiting such large doses of the drug.

You will find a very interesting discussion of quinine hydroferrocyanide and its uses on page 567 *et seq.* of "The Textbook of Alkaloidal Therapeutics," new edition. Here the experiences of Lannoise with this drug in phthisis are quoted. This physician recommends the administration of three granules of 1-64 grain in hemoptysis, believing with Laura that the drug has a special influence upon the cardiovascular circulation. Personally, we give to adults suffering from phthisis pulmonalis 1-20 to 1-16 of a grain, three or four times daily, alternating week and week about with the arsenates of iron, quinine and strychnine.

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QUERY 5787.—"A Fatal Case of Intestinal Obstruction." W. K., Bahamas, reports the case of a man 45 years of age, who was taken with severe abdominal pains early in the morning of June 8. He writes:

"On percussion, I found the abdomen very tympanitic. Temperature and pulse normal. Bowels had not been free, but he had a slight action on the 7th. Epsom salt had been given him before my arrival. I applied heat and massaged the abdomen. Gave 1-6 grain each of calomel and podophyllin at intervals until 1 grain of each had been taken. Then I gave an injection of hyoscine, morphine and cactin, pain be-

ing so severe. Patient rested well for several hours and apparently was better through the day. The bowels did not move, so I gave a high enema at 7 p. m., but no action resulted. Then I gave croton oil, 1-6 drop in warm milk, followed by another enema. I was called again at 4 a. m. and found him in a state of coma. He passed away at 7 a. m., forty-eight hours after being attacked. The pains were in the umbilical region. He passed a large quantity of urine just before death. Was the case one of strangulated hernia?

"I had a similar case last August, and should like some light on the subject, for future reference. This patient vomited when first taken, but only water which he had taken; he also threw up a great deal of water prior to death."

After carefully reviewing the rather meager facts presented, we have come to the conclusion that death was due to obstruction, due probably to intussusception or some form of internal strangulation. Just what portion of the intestine was involved, it is, of course, impossible to say. You do not state the pulse-rate toward the end. We presume the patient collapsed, and it is just possible that the bowel ruptured. Intussusception is usually met with in younger patients, but several fatal cases have been reported in individuals past forty. You do not give any information relative to the man's occupation, prior history, habits, etc.

Some good results might have followed the placing of the patient in the knee-chest position and the inflation of the bowel, or the injection of oil, followed by copious saline enemata. We should also have been inclined to give hyoscyamine or atropine to effect.

We regret the absence of an autopsy in this particular instance. Wherever it is possible, doctor, secure it in such cases. It is only thus that we can confirm tentative diagnoses and later save patients afflicted in a similar manner.

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QUERY 5788.—"Lichen Planus." G. W. A., Texas, asks us to tell him how to cure lichen planus. He has a stubborn case under treatment.

Lichen planus is an inflammatory dermatosis closely related to lichen ruber. The disease is of a chronic character, as a rule, but may occur in an acute form. It is usually limited in distribution, but the lesions may be extensive, or even general, over the body. A number of variations from the typical form have been noted, and the systemic disturbances vary pronouncedly in their severity. Crocker reports several generalized cases in which the health was affected profoundly. In some instances the disease terminated fatally.

The causes of lichen planus are not definitely understood. Hyde states that one of his patients displayed the disease in an aggravated form immediately after the body of her husband, who had been burned to death, was brought into the house. In two cases the writer has observed lichen in patients suffering from prolonged general debility and pronounced nervous manifestations. Grief, anxiety, overwork, mental strain, not infrequently precede the disorder. Digestive disturbances, malaria, diseases of the generative organs, malnutrition, even traumatism, are cited as other causes. Lichen is rarely seen in patients under twenty. Women suffer more frequently than men in this country; in Germany the reverse is true. The possibility of diabetes must always be remembered. A French authority states emphatically that lichen planus is invariably due to trauma, and is found in individuals whose vasomotor tonus is diminished, and who suffer from disturbances of the nervous centers. He calls attention to the fact that the lesions develop along scratch-marks. It is safe to assume that the genesis of the disease is neuropathic.

We would suggest, Doctor, that you make a careful examination of the patient and his secretions. In order to effect a cure it is essential to recognize the basal pathology. It will be apparent to you that in every case individual conditions will modify medication. It is essential, primarily, to upbuild the general health. The diet should be carefully regulated. The patient should exercise daily in the open air, and sleep at least nine hours per day in a well

ventilated chamber. Free elimination, renal, dermal and intestinal, must be maintained. Quite frequently immediate improvement follows change of climate and occupation.

Unquestionably one of the most valuable remedies is arsenic. Quinine and salicin have also proven beneficial. We should be inclined to give quinine arsenate (or the arsenates with nuclein) after meals, alternating week and week about with quinine hydroferrocyanide, gr. 1-6. As alterant eliminatives give iridin, rumicin and xanthoxylin, an hour before meals, adding boldine if the amount of urea excreted is not sufficient. Papayotin, or other digestive, after food if indicated; if indican or skatol are detected in the urine, the sulphocarbolates, to effect; once or twice a week, calomel or blue mass in small doses, with podophyllin and iridin, hourly for four to six doses at night with a saline flush the next morning.

Local treatment must be varied to meet the conditions present. The main thing is to protect the affected area and relieve the itching. Zinc oxide and talcum, with from one to three percent of salicylic acid, in equal parts of lanolin and vaseline, have been highly recommended. We should be inclined to apply carbenzol, or an antiseptic oil, at night, and a dusting powder during the day.

Some patients, especially those with much scaling and infiltration of the skin, respond better to ointments. Try equal parts of carbenzol and resin ointment, adding ten drops of oil of thuja to each ounce. In some cases rapid results follow daily bathing of the skin with the following solution: A double handful of wheat bran is placed in a large vessel, and three pints of boiling water poured thereon. It is allowed to stand until cool; strain and stir in three teaspoonfuls of magnesium sulphate and ten minims of carbolic acid. Add a little rose or lavender water, and use freely. The preparation proves particularly effective when the parts are greatly inflamed.

For hypertrophied areas, salicylic acid is a very effective agent. Dissolve 30 grains in equal parts of alcohol and ether, sufficient to make 1 oz. Paint the solution over the patch. As soon as the alcohol and ether have evaporated, cover with adhesive plaster, and change dressing daily. As soon as inflammation is observed, substitute a soothing ointment or anti septic oil.

Some very remarkable results have followed the use of calx iodata, phytolaccin, stillingin and arsenic iodide, alternated with the arsenates of iron, quinine and strychnine.

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QUERY 5789.—"Pulmonary Affection." H. J. N., Pennsylvania, is treating a man 32 years old, and of excellent physique, who some time ago injured one finger slightly, getting a splinter under his nail, to which, however, he paid no attention. A month later an abscess formed in the axilla. He became very sick, and lay quite a while with high fever, and several abscesses formed on various parts of the body. Pneumonia also set in. He gradually recovered so as to go out, and increased in weight and strength, but had a very hard and annoying paroxysmal cough which persisted in spite of treatment. Temperature at this time normal; pulse 80; respiration 26; good red color: He ate well, and if cough let him, slept well, and worked every day, but coughed and expectorated freely.

Left lung now (four years since the initial infection) entirely consolidated and vesicular murmur in lower two-thirds absent. No expansion; very dull on percussion. On aspiration, no fluid was found in the pleura. When he turns on right side, fluid expectorated seemed to drain out of lung and be coughed up. Right lung emphysematous. The doctor fears the left lung will be destroyed. He diagnoses a pyemia. The patient is receiving arsenic sulphide, calcium sulphide, quinine bisulphate, iron, strychnine arsenate, and iodoform. The chest is painted with iodine. Patient in open air night and day. Plenty of good food is given. The doctor asks: "Can I do more, medical or surgical? I have only had this case two weeks." Specimen of sputum accompanies the clinical report.

The report of our pathologist reveals a pneumococcic and streptococcic infection. Apparently a gangrenous condition obtains.

We are not familiar with the extent of the lesion, but from the clinical data presented, the condition is evidently serious.

As you are aware pulmonary gangrene is more frequently seen in old or debilitated individuals. Gangrene is associated with the growth of saprophytic bacilli on a soil made favorable by the presence of the pneumococcus and streptococcus. As you are doubtless aware, the right lung is affected more often than the left, and in circumscribed forms, the lower lobe is more frequently implicated than the upper. The physical signs are often obscure. Not infrequently, those of bronchitis alone are detected. The patient expectorates, however, large quantities of fetid discharge, which upon being allowed to stand separates into three layers. The uppermost, a thick opaque froth, grayish yellow in color; the middle, clearer and watery; and the lowest consisting of a greenish-brown sediment containing shreds of lung tissue, and sometimes blood.

As a rule the patient becomes more or less emaciated, and distinct leucocytosis obtains. Frequently, a septic condition develops and the patient sinks from exhaustion. Rarely, there may be an almost total absence of constitutional disturbances. In such instances, recovery may be expected. Hemorrhage must be looked for, and guarded against. Surgical treatment has saved life in many cases. It seems to us it would be well, if your patient's general condition is good, to consult a competent surgeon, and if he believes operative interferences indicated, proceed as rapidly as possible.

For a description of the surgical treatment of gangrene, see any modern work on surgery. In the meantime, maintain nutrition, order a concentrated liquid diet, stimulate digestion, maintain elimination and push such tonics and reconstructants as calx iodata, guaiacol carbonate and the nucleinated phosphates, together with the systemic antiseptics—calcium sulphide and echinacea. Inunctions of Unguentum Credé (colloidal silver) and hypodermic injections of nuclein solution should prove beneficial. Inhalations of formalin or ammonium chloride vapor, the latter carrying in suspension proper antiseptic agents, may well be ordered.

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QUERY 5790.—"Calx Iodata and Carbolic Acid." B. M. S., California, thinks carbolic acid and iodized calcium would make a good combination for use in gastric or intestinal ulcers. He asks our opinion of this formula: Carbolic acid, gr. 1-2; iodized calcium, gr. 1-3. To make one tablet. One to two to be given every two to four hours.

Calx iodata and the sulphocarbolates would prove infinitely better, we think, alternated two to four times daily. Phenol is not now used internally to any great extent. As you are aware, serious results frequently follow the employment of the unmodified drug. The sulphocarbolates are especially useful in ulcerated conditions of the intestine. In gastric ulcer medication must depend to a great extent upon the character of the lesion, and the accompanying conditions. We should hesitate to use the combination in well-marked cases. Resorcin would in our estimation prove more effective than carbolic acid. We should not care to combine either drug with calx iodata in a tablet, for the reason that it would be a simple matter to add the desired dose of the former, and it is always preferable to base the dosage of calx iodata upon the conditions present in the individual.

After all, the essential thing in treating gastric or intestinal ulcers is to provide the maximum of rest with the minimum of local irritation. In gastric ulcers, for instance, many practitioners withhold all food by the mouth for a week or even more, feeding meanwhile by the rectum. Practically the same method is employed in duodenal ulcers. Olive oil is sometimes used internally, and atropine may be employed to arrest secretion. The silver salts were at one time much used.

Ulcers which do not yield readily to medical treatment should be turned over to the surgeon—and it is not wise to wait too long.